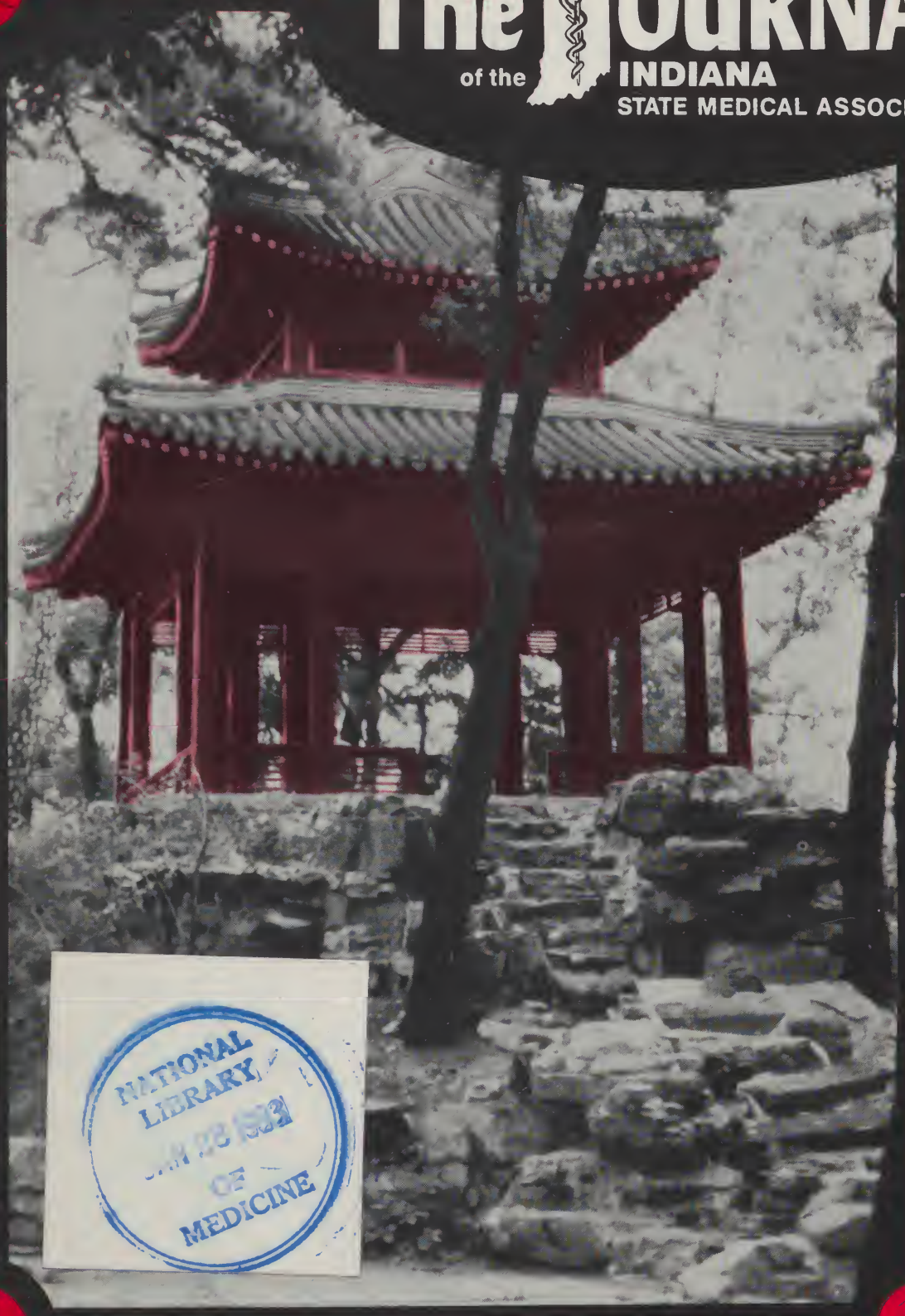
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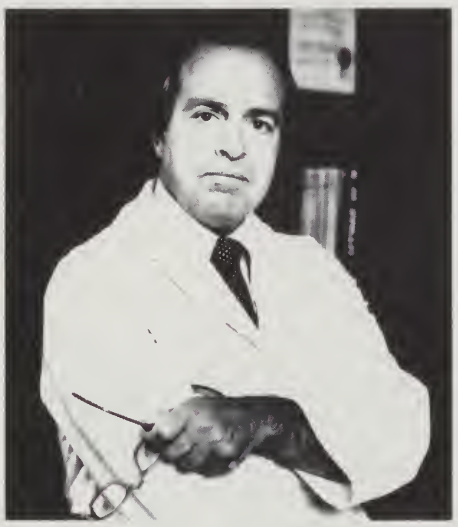


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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

PAGE ONE of *The Evening News* (Indianapolis) for Saturday, February 27, 1875 has an announcement entitled: GRADUATING EXERCISES. The article begins: "Last evening the commencement exercises of the Indiana Medical College were held at Exchange Hall."

The article goes on to explain that Professor Clark delivered an address on behalf of the faculty, and that the class valedictory was given by John M. Kane. The names of the 45 recipients of the M.D. degree are then listed. Among these names is that of D. S. Jordan.

This was the high-water mark of D. S. Jordan's formal education. Although he would later be the recipient of honorary doctorate degrees, it was his M.D. that earned him the title of Doctor. And though he never practiced medicine, his influence on medical (and other) education in 20th century Indiana is substantial.



D. S. Jordan

Jordan was born in western New York State January 19, 1851. As a youth he developed an avid interest in botany, and when he graduated from Cornell University in 1872 he had accumulated so many hours to his credit that he was awarded the Master's degree, rather than the usual B.S. Jordan had an interest in research and teaching. During the next three years he spent a brief period teaching in Illinois and Wisconsin, and worked briefly with Louis Aggissiz in Massachusetts.

Circumstance brought him to Indiana in 1874 to accept a teaching position at the Indianapolis High School. It was at this time that he also enrolled in the Indiana Medical College. In 1875, after being awarded the M.D. degree, he was appointed Professor of Biology at Butler University, spending the next four years on the Irvington campus. A small-town Midwestern university then lured him away, making him Professor of Natural History, and giving him the freedom to develop his department in the progressive manner he had advocated. Although this school boasted over 300 students, about half were high school students, the University doubling as a high school for its home town. It was here that Jordan first had the opportunity and freedom to express his talent.

Within four years he became the Institution's president (the youngest in America at that time); and the reputation he made for himself and the school within the next several years was unique, both being widely acclaimed. As a result, Jordan was then given opportunity to head a new institution on the West Coast, which he accepted, and where he spent the remaining 40 years of his life.

Jordan described himself as a naturalist, a teacher, and a minor prophet of democracy. He is described in the encyclopedia as a naturalist, an educator, and worker for world peace.

At the time of his death (September 19, 1931) Dr. D. S. Jordan had published 52 volumes and more than a thousand articles.

The "small-town Midwestern university" mentioned above is Indiana University, the "new institution on the West Coast" is Stanford University, and D. S. Jordan is David Starr Jordan.

Dr. Jordan, as president of Indiana University, modernized the university's curriculum by eliminating the fixed program and introducing the elective system, to which he attracted numerous scholars and brilliant teachers. Over the subsequent years this changed the school from a small, unknown college into a growing major university.

Although Burton Myers *(History of Medical Education in Indiana,* 1956) credits President William Lowe Bryan for developing the Medical Department at I.U., commencing in 1903, credit must also be given to Dr. Jordan who established the basic science foundation upon which a medical school could be developed, and who initiated the progressive changes in education, which permitted the growth and subsequent addition of a medical school.

It is of interest to note that the school which bestowed the Medical degree on Dr. Jordan in 1875 later became incorporated into the Indiana University School of Medicine in 1908.

With regard to names: Starr comes from Starr King, a Unitarian preacher and author, who was held in high esteem by Dr. Jordan's parents.

The name Jordan is associated with landmarks at all three universities, with which Dr. Jordan was associated. Jordan Hall at Butler University, however, is named for Arthur Jordan, not David Starr.

Of Dr. D. S. Jordan's medical school classmates of 1875, nothing is known at this time of the subsequent destinies of valedictorian John M. Kane, or the 43 other recipients of the M.D. degree.

(Background material for the above article was obtained from *David Starr Jordan: Prophet of Freedom,* by Edward McNall Burns, Stanford University Press, Stanford, California, 1953).

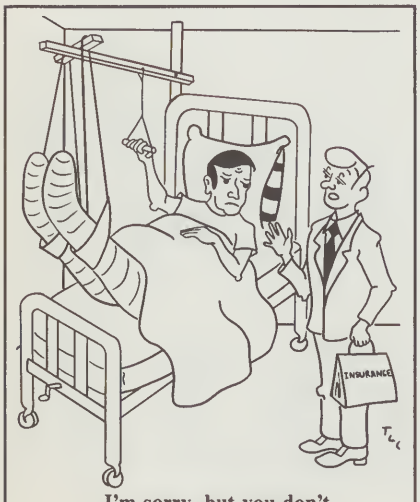
WHAT'S NEW?

Abbott Laboratories announces Corzyme, the first commercially available enzyme immunoassay (EIA) for the detection of antibody to hepatitis B core antigen (anti-HBc). Health-care workers who come in frequent contact with blood or blood products are among the more than 2 million persons in the U.S. considered to be in high-risk groups for exposure to hepatitis B.

Mettler Electronics announces a new SONICATOR® 706. It is an ultrasound therapy unit with digital power and time metering circuits that allow precise and accurately reproducible ultrasound treatments, either continuous or pulsed wave.

Eli Lilly announces FDA approval for marketing Humulin® (human insulin of recombinant DNA origin, Lilly). Humulin is a highly purified insulin product that is chemically and structurally identical to insulin produced by the human body.

Inspiron Respiratory Division of C. R. Bard has introduced a new Neonatal Ventilator Circuit. It is disposable and is both lightweight and compact and can be easily set up in neonatal intensive care areas. There are four different models to conform to various neonatal machines. A feature is the patient connector swivel to accommodate the infant's head position.



I'm sorry, but you don't have a leg to stand on.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Marion Laboratories has marketing approval from FDA for Cardizem™ (diltiazem HC1), a calcium slow channel blocker. Cardizem is indicated for treatment of angina due to coronary artery spasm and chronic stable angina in patients who are unresponsive to therapy with beta-blockers and/or nitrates or unable to tolerate them.

Litton has a new, transcutaneous CO_2 monitor for non-invasive carbon dioxide measurement. Called Transkapnomonitor™, the new unit can be used for neonates in intensive care areas, in infant nurseries, and for adult patient monitoring in operating rooms. It is now in clinical trial. FDA approval is expected early this year.

Amko introduces a new vaginal speculum which evacuates smoke for better field visualization in laser surgery. It features a unique, permanently attached smoke removal tube that is now an integral part of the Amko's SRT specula—Graves, Pederson, Weisman-Graves, etc. The inside of the blades and the tube are satin-finished to minimize reflection.

The Zovirax® brand of acyclovir, the antiviral introduced by Burroughs Wellcome, is now produced in intravenous form and has been approved by the FDA for management of genital herpes. It will be used to combat potentially serious herpes simplex virus infections (HSV-1 and HSV-2) in hospitalized patients whose natural defenses against infection are impaired. It will also be used to treat immune-normal patients with initial genital herpes infections severe enough to warrant hospitalization.

Mead Johnson introduces "TraumaCal"™, the first nutritionally complete, high nitrogen liquid supplement specifically formulated for multiple trauma and major burn patients. It is a 1½ Calorie/ml formula designed for either oral or tube feeding. It provides 22% of its calories as high quality protein. In 3,000 calories TraumaCal provides 100% of the U.S. RDA for all essential vitamins and minerals, plus additional amounts of vitamins C, E, and B-complex and the minerals calcium, phosphorus, copper, and zinc.

BMA Cassettes have two educational cassettes—"Helping Cancer Patients Cope" by Sobel and Worden, and "Clinical Hypnosis" by Herbert and David Spiegel. The first mentioned offers practitioners a guide for applying cognitive/behavioral techniques to assist their patients in making the most constructive adjustment possible. The latter cassette deals with systematic guidance for applying techniques for short-term interventions.

Litton has two, new three-channel, 12-lead electrocardiographs for use in office or hospital. Each unit offers a choice of either carbon transfer or thermal recording systems. Called Multiscriptor®EK 403 and Multiscriptor®EK 43, both monitors feature automatic program advance, which frees the operator for other tasks.

Du Pont has added a fully automated test for urinary protein to its 'aca' discrete clinical analyzer. It is recommended for following the course of nephritis, toxemia of pregnancy, systemic lupus and myeloma (Bence-Jones proteinuria). The new analyzer is sensitive to gamma globulins as well as to albumin.

Xero-Lube is a pleasantly flavored saliva substitute that provides immediate relief of dry mouth discomfort by moistening and lubricating the inside of the mouth. Xerostomia (dry mouth) produces pain, tissue damage and difficulty in eating and sleeping. The product is made by Scherer Laboratories.

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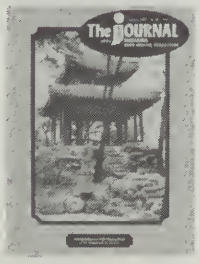
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ABOUT THE COVER

Members of an Indiana medical delegation who toured China in June 1982 found ample opportunity to test their photographic skill, as shown by this picture of a pagoda snapped by Dr. George F. Rapp of Indianapolis. A report of the delegation's trip begins on page 54.

—COVER BY FRED KINGHORN

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LETTERS

Appreciates Journal's Use of 'Certification' Article

We wish to express our appreciation to THE JOURNAL staff for using the article, "The Importance of Accurate Medical Certification of Death," in the October 1982 issue.

Without your help and support in conveying this kind of information directly to physicians, we would be hard pressed to accomplish our objective in such a short time.

Since physicians in Indiana were responsible 100+ years ago for establishing the Indiana State Board of Health, we certainly hope to continue and strengthen the ties between the ISMA and our agency which have existed for "lo, these many years."

Ronald G. Blankenbaker, M.D.
State Health Commissioner
Indiana State Board of Health

Dr. Solomon Offers Details on His Quit-Smoking Program

Dear Colleagues:

Thank you for the thousands of inquiries I received concerning your interest in my Cigarette Smoking Elimination Program. I must apologize for the delay in my response; however, I wanted personally to make sure that this procedure had clinical merit.

Based on my clinical series, I feel that we, the medical community, should look upon this method, not as a cure-all, but as something positive that can be done to assist our patients.

Data from my clinical series, over a three-year period, and data from other physicians showed similar results. From a combined patient pool of several thousand, we observed approximately 85% of the patients stopped smoking completely for the first month. This was based on the data we received from questionnaires returned by patients. Approximately 50% remained nonsmokers for up to and including three years.

This procedure is performed in one office visit. The visit usually takes 1½ hours to 2 hours. It includes: history, physical examination, Pulmonary Function Tests, EKG, blood test, urinalysis, the injection, behavioral modification tips, and a smoker's diet that I conceived. I have noticed that for optimal results, the patient must be highly motivated to want to stop smoking.

The usual and customary fee I charge patients for the aforementioned is $385. Their sincere willingness to pay this amount adds to their commitment.

It would be impossible for me, using this form, to go into great detail concerning this comprehensive method. It is for that reason that I, through **Consultants in Medical Education,** have agreed to lecture to interested physicians who desire to use it.

It disturbed me greatly that as a result of the positive coverage in the lay press, including glowing testimonials from successful patients, a few, solely profit-oriented individuals, have made great personal fortunes by offering their own "lay" brand of this procedure. I feel a responsibility to the millions of cigarette smokers who desperately want to quit. I also feel a responsibility to share with my colleagues the details of this procedure.

If you desire further information concerning this program, please direct all correspondence to **Consultants in Medical Education, P.O. Box 21371, Pikesville, Maryland 21208;** or call **301/472-4263.**

Neil Solomon, M.D., Ph.D.
Baltimore, Md.

Board of Health Offers Newborn Screening Guidelines

The 1965 Indiana phenylketonuria law (IC 16-8-6) was amended by Public Law 84, Acts of 1978, to require, effective 1 July 1979, all newborn infants to be tested for congenital hypothyroidism in addition to phenylketonuria. With approximately 90,000 annual births and the reported frequency of congenital hypothyroidism of 1:6000 to 1:5000 live births and of phenylketonuria of 1:17,000 live births, it is anticipated that 15-18 hypothyroid infants and 5 or 6 infants with phenylketonuria may be found annually in Indiana.

The law states that *"it is the responsibility of each hospital and physician* to take or cause to be taken a blood sample from every infant born under their care, and to transport or cause to be transported that sample to a laboratory designated for testing for hypothyroidism." The State Board of Health is required to "designate" one or more laboratories to perform the tests for hypothyroidism, but the law permits other laboratories as well as the hypothyroid-designated laboratories to conduct tests for phenylketonuria. The State Board of Health is also required to ensure (1) proper and timely sample collection and transportation, (2) quality testing procedures at the laboratories designated for hypothyroid testing, and (3) uniform reporting procedures.

Guidelines have been developed by the Indiana State Board of Health to aid in the successful implementation of this program. The procedures outlined are recommended so that each infant will be adequately screened in accordance with the highest standard of medical and laboratory practice and to minimize the number of children not screened because they are discharged early or later than usual. It is essential that all hospitals, physicians, and designated laboratories implement policies and procedures necessary to assure that all infants are screened for phenylketonuria and congenital hypothyroidism in a timely and accurate manner.

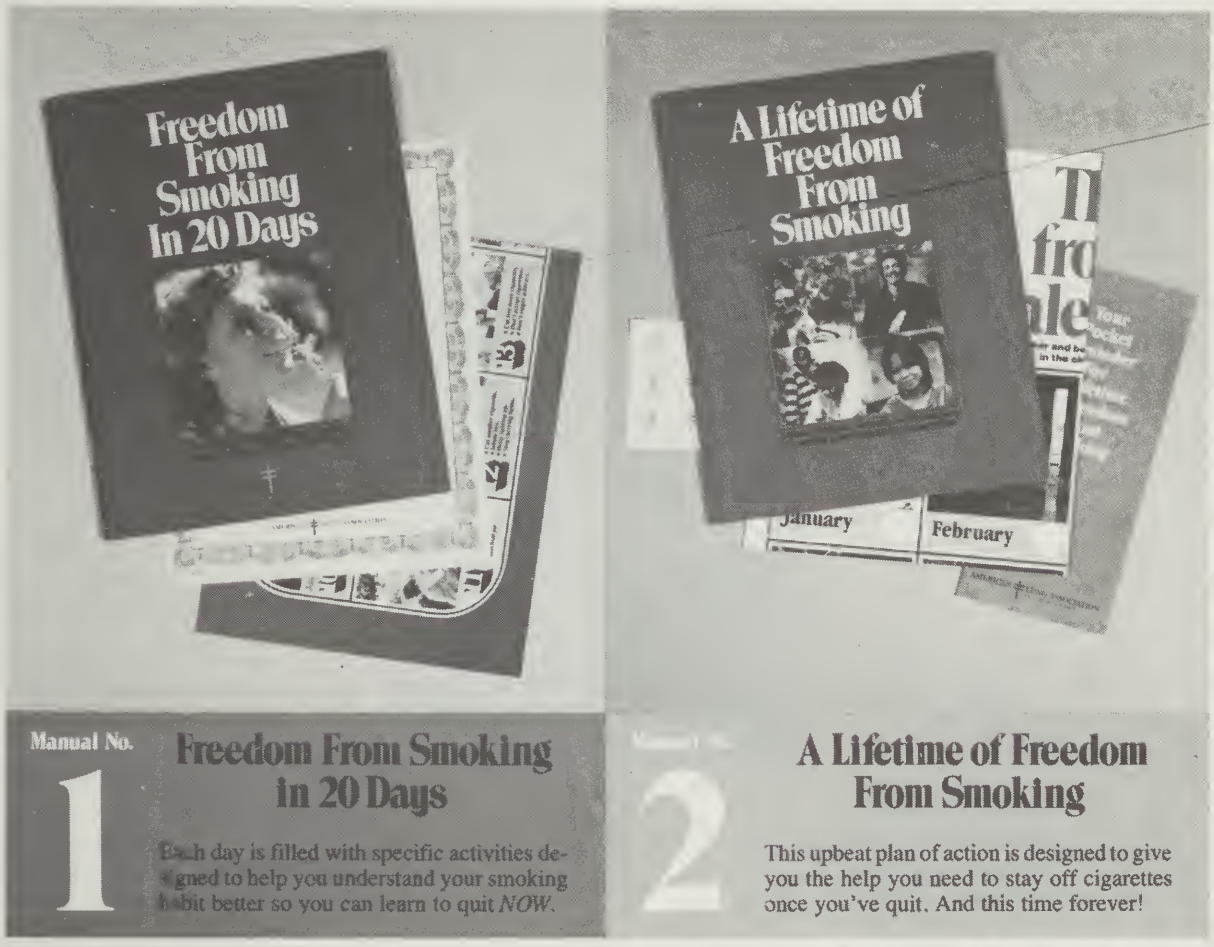
It is hoped that through cooperation and coordination of such activities we will be able to further prevent the development of unnecessary mental retardation. If you have any questions or concerns, or need a set of guidelines please contact T. S. Danielson, M.D., Director, Division of Maternal and Child Health at 317/633-8449.

Ronald G. Blankenbaker, M.D.
State Health Commissioner
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Government's Role in Rising Health Care Costs

Guest Editorial



JERE D. GUIN, M.D.
Kokomo

POGO AND HIS FRIENDS, looking for the cause of pollution, took a circuitous journey, and came upon a campground that was strewn with what turned out to be their own litter. This prompted Pogo to exclaim "We has met the enemy and he is us."[1] Government representatives complain about escalation of health care costs, often when much of the problem is government-induced. Some of the ways this occurs are subtle, and some are obvious, but let's look at a few of the more prominent influences.

The Wrong Incentive?

If utility services were free, how many of us would bother turning off the lights or limiting the use of heating and air conditioning? Out-of-pocket health costs for many of us must exceed 5% of our gross income to be deductible for 1983, but for others, the favorable tax status for health expenditures and third-party coverage tends to cause consumers to purchase more than they would otherwise.

This leads to increased administrative cost[2] and overutilization and represents a leading cause of increased health care costs. Even Indiana physicians (who seem to decry first-dollar coverage) tend to purchase this type of health insurance policy[3] because of tax benefits. Nontaxable fringe benefits are popular in collective bargaining agreements because both sides win at public expense.

Programs that underwrite the cost of health care are so highly valued by the membership of labor groups that business finds it unprofitable to try to effectively control health costs and shuns government control as potentially more dangerous.[4]

Providing a Scapegoat

Although organized medicine predicted the financial problems we now are facing when Medicare and Medicaid were started, the responsible parties have successfully managed to transfer their culpability onto physicians whose chief sin seems to be caring for their patients under the duress caused by these programs.

How often have you heard that physicians' fees have increased faster than inflation? Actually, the average prices for physician's outpatient services have increased at no greater rate than the All Services Index, the service component of the Cost Price Index (CPI), for at least the last 14 years. Such prices are sometimes inappropriately compared with the All Items Index within the CPI, which includes both goods and services. Physicians have rather managed to hold the line on price increases in spite of additional administrative costs brought on by Medicare, Medicaid, and other government programs.

Punishment for Efficiency?

Although use of the obfuscatory "usual, reasonable and customary"

Correspondence: 804 S. Berkley Road, Kokomo, Ind. 46901.

(UCR) fee schedules by third-party payers is extremely inflationary,[5] this is the system used by Medicare and Medicaid. Following the disastrous first several years of these programs, a rather low cap was placed on fees rather than changing the method of payment. This has caused nonavailability of services to many Medicaid recipients,[6] and lower payments to those on Medicare, particularly those in rural areas and those patients of physicians who charge less.

The discriminatory UCR policy encourages new physicians to use higher initial fee schedules to avoid receiving a low computer "profile,"[6,7] and while out-of-pocket costs to consumers might limit this practice,[8] there is no incentive in the government-sponsored plans. The failure of Medicare and Medicaid to pay their share has made hospitals unwilling tax collectors,[9] resulting in increased rates to private patients and a balance sheet showing increased overall cost of hospitalization.

Compounding Mistakes

The darling of certain government-employed economists is the health maintenance organization (HMO) because they feel that these organizations deliver health care at lower cost than other providers. However, that purported cost effectiveness may be illusory[8] as the figures cited to prove this efficiency are often for a group of "lower users" (e.g., a younger age group), and any real saving to the consumer is usually based on a reduced rate of hospitalization.[10]

A major factor influencing utilization is the higher rate schedule provided by third-party payers (including government) for surgical and laboratory procedures during hospitalization as compared with outpatient service. Government funds have also been used to subsidize certain HMOs, (allowing them to better compete with other health care systems) despite a lack of definite proof of their efficacy.

Data for prepaid plans have never satisfactorily separated influences of the quality of care, characteristic of the population base and incentives to physicians and patients.[8] More regulation has been one response to increased health costs, and while this may have curbed some prominent abuses, the net may be an actual increase in cost.[11]

Hospitals are often required to use inefficient numbers of personnel to pay for unwise and expensive construction, and to hold scores of costly, nonproductive meetings to satisfy some federal regulation or program. The total cost to hospitals brought on by the increased administrative and clerical loads, and the inefficiency caused by regulation, is impossible to accurately estimate. Whatever it is, it is too high.

Drug costs were stable until 1973 but have since risen rapidly. Since that time, there has been a dramatic increase in the cost of marketing a new drug. Although the FDA has provided the medical community with some excellent pharmaceutical research by demanding that industry provide it, the consumer must underwrite this by paying higher prices for drugs.

A little recognized cost of the government programs is the regulatory expense (to the government). It is not easy to obtain data on the impact of this, but one economist estimated that it is 2-3% of the *total* cost of health care. When one adds the 7% cost of administering private insurance, it is clear that much of the problem is not physician related. Much of the increase in room charges can be attributed, directly or indirectly, to government influence, and much of this is due to higher labor cost, FICA taxes and similar effects of government policy.

A Positive Approach

Indiana desperately needs close cooperation between physicians, hospitals, industry and the insurance community. Unfortunately, many fear intercession by the federal government if they attempt any cooperative venture. I have seen physicians and insurance executives refuse to talk to each other for fear that any altruistic move would be misconstrued or misrepresented as collusion. Obviously, everything possible should be done to maintain the integrity and efficiency of the system. To do this, executives, legislators, and agencies in all levels of government should adopt an attitude that is positive and cooperative rather than one that is negative and captious. This should be done not only because it is in the public interest, but because it is unlikely that the growth in the cost of health care will ever be satisfactorily controlled until it is possible to correct those important forces outside of the control of physicians.

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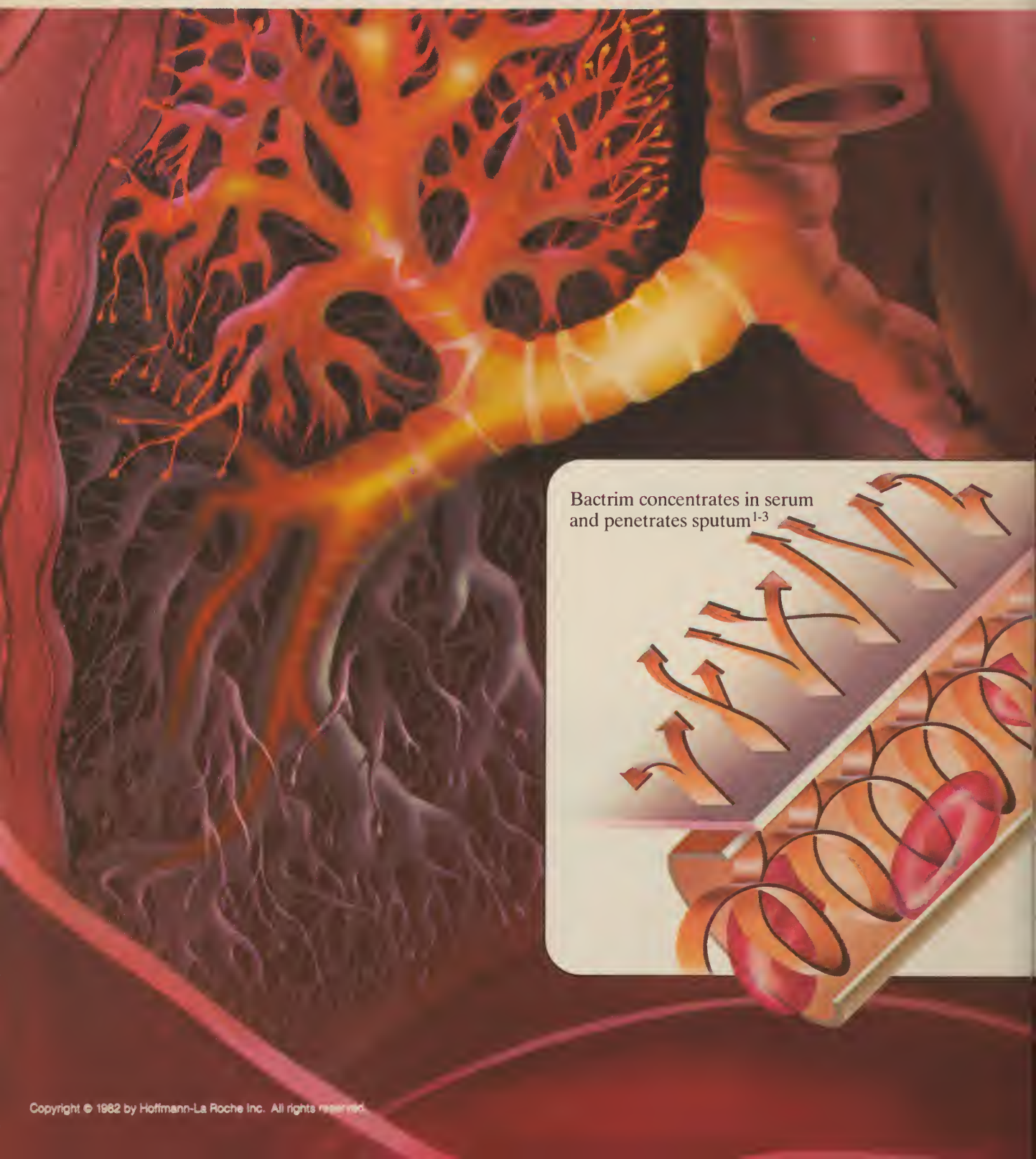
3. Foil-sealed bottle mouth to help ensure product integrity



McNEIL

McNeil Consumer Products Company
Fort Washington, PA 19034

Bactrim™ attacks the
(trimethoprim and sulfamethoxazole/Roche)
in acute exacerbations



Bactrim concentrates in serum and penetrates sputum[1-3]

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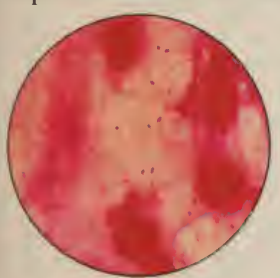
major pathogens of chronic bronchitis*

Bactrim clears sputum of susceptible bacteria

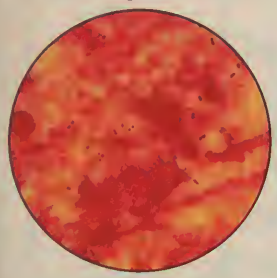
In sputum cultures from patients with acute exacerbations of chronic bronchitis, *H. influenzae* and *S. pneumoniae* are isolated more often than any other pathogens.[4,5] One study of transtracheal aspirates from 76 patients with acute exacerbations found that 80% of the isolates were of these two pathogens.[5]

Bactrim is effective *in vitro* against most strains of both *S. pneumoniae* and *H. influenzae*—even ampicillin-resistant strains. And in acute exacerbations of chronic bronchitis involving these two pathogens, sputum cultures taken seven days after a two-week course of therapy showed that Bactrim eradicated these bacteria in 91% (50 of 55) of the patients treated.[6]

attacks *H. influenzae*—even ampicillin-resistant strains



attacks *S. pneumoniae*



Bactrim reduces coughing and sputum production

In three double-blind comparisons with ampicillin *q.i.d.*, Bactrim DS proved equally effective on all clinical parameters.[7-9] Bactrim reduced the frequency and severity of coughing, reduced the amount of sputum produced and cleared the sputum of purulence.

Bactrim has the added advantages of *b.i.d.* dosage convenience and a lower incidence of diarrhea than with ampicillin, and it is useful in patients allergic to penicillins.

Bactrim also proved more effective than tetracyclines in 10 clinical trials involving nearly 700 patients.[10] Overall clinical condition of the patients, changes in sputum purulence, reduction in sputum volume and microbiological clearance of pathogens—all improved more with Bactrim therapy than with tetracyclines. G.I. side effects occurred in only 7% of patients treated with Bactrim compared with 12% of tetracycline-treated patients. (See Adverse Reactions in summary of product information on next page.)

Bactrim is contraindicated in pregnancy at term and nursing mothers, infants under two months of age, documented megaloblastic anemia due to folate deficiency and hypersensitivity.

Bactrim DS. For acute exacerbations of chronic bronchitis in adults* when it offers an advantage over single-agent antibacterials.

References: 1. Hughes DTD, Bye A, Hodder P: *Adv Antimicrob Antineoplastic Chemother 1/2*:1105-1106, 1971. **2.** Jordan GW *et al: Can Med Assoc J 112*:91S-95S, Jun 14, 1975. **3.** Beck H, Pechere JC: *Prog Antimicrob Anticancer Chemother 1*:663-667, 1969. **4.** Quintiliani R: Microbiological and therapeutic considerations in exacerbations of chronic bronchitis, in *Chronic Bronchitis and Its Acute Exacerbations: Current Diagnostic and Therapeutic Concepts;* Princeton Junction, NJ, Communications Media for Education, Inc., 1980, pp. 9-12. **5.** Schreiner A *et al: Infection 6*(2):54-56, 1978. **6.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **7.** Chodosh S: Treatment of acute exacerbations of chronic bronchitis: results of a double-blind crossover clinical trial, in *Chronic Bronchitis and Its Acute Exacerbations: Current Diagnostic and Therapeutic Concepts. Op. cit.*, pp. 15-16. **8.** Chervinsky P: Double-blind clinical comparisons between trimethoprim-sulfamethoxazole (Bactrim™) and ampicillin in the treatment of bronchitic exacerbations. *Ibid.*, pp. 17-18. **9.** Dulfano MJ: Trimethoprim-sulfamethoxazole vs. ampicillin in the treatment of exacerbations of chronic bronchitis. *Ibid.*, pp. 19-20. **10.** Medici TC: Trimethoprim-sulfamethoxazole (Bactrim™) in treating acute exacerbations of chronic bronchitis: summary of European clinical experience. *Ibid.*, pp. 13-14.

Economical b.i.d.

Bactrim™ DS

(160 mg trimethoprim and 800 mg sulfamethoxazole/Roche)

*Due to susceptible organisms. **Please see next page for summary of product information.**

Bactrim™

(trimethoprim and sulfamethoxazole/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea, pseudomembranous colitis and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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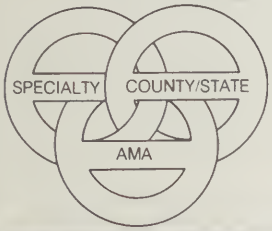
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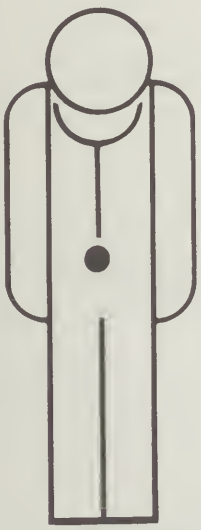
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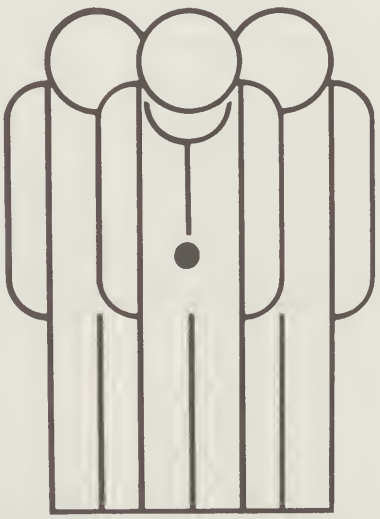
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How TEFRA* Will Affect Employee Benefit Programs

*The Tax Equity and Fiscal Responsibility Act of 1982

JOHN S. RYKBA, J.D.
Indianapolis

THE TAX EQUITY and Fiscal Responsibility Act of 1982 (TEFRA), and its impact on retirement planning, has caused much consternation among those professionals who have incorporated their practices in order to take advantage of the higher deductible limits while at the same time maximizing retirement benefits so as to maintain a standard of living that is both comfortable and satisfying.

On the other hand, the unincorporated professional has, for the first time, the capability of establishing and maintaining a tax-qualified "corporate" retirement plan without the need of incorporating.

This "parity," between corporate and non-corporate business, will become a reality in 1984. For the time being, however, the effect of TEFRA is directed toward the professional service corporation, with one objective in mind: scaling down the maximum benefits allowable for the corporate professional while "spreading the wealth," if you will, in a more equitable manner among all employees.

In this article, we intend to acquaint you with the changes made by TEFRA as they affect retirement plans and what alternatives you may have in complying with these new rules.

Contribution and Benefit Limits

Beginning in 1983, plans that were in existence on July 1, 1982 will be subject to new contribution and benefit limits. For defined benefit plans, the maximum expected retirement benefit will be $90,000 (currently, $136,425). For defined contribution plans, the maximum annual addition that can be made in any one plan year will be limited to $30,000 (currently, $45,475). In addition, an employee will be eligible to retire with a full pension at age 62 (currently, age 55).

Lastly, when an employee is a participant in both a deferred benefit and defined contribution plan, the overall limitation on the maximum benefit an employee may receive from these plans is limited to 1.25 (currently, 1.40). In certain instances, the 1.25 overall limit may be reduced 1.0 if both plans are found to be weighed heavily in favor of the key professionals.

Plans not in existence on July 1, 1982 are automatically subject to the new rules when adopted.

Generally, the new rules impact you, the corporate professional, in the following manner:

- The maximum defined benefit pension you can receive is now $90,000, thereby reducing costs to your plan if you were anticipating a retirement benefit in excess of the $90,000 limit.
- A reduction in the amount of deductible dollars that can be contributed to a combination defined benefit/defined contribution plan.
- A reduction in the amount of retirement income you can receive if normal retirement age in the plan is under age 62.

Consequently, the professional may see a corresponding loss in the income replacement ratio that the plan or plans of the corporation is currently offering. To help offset this loss of future income, other techniques (though less attractive from a deductibility point of view) may be used; for example, supplemental retirement plans (or unfunded deferred compensation arrangements), wage continuation programs, etc. It becomes important, therefore, to consult your attorney, certified public accountant *and* actuary to assist you in determining how these rules may hinder your compensation and retirement planning, and what (if any) alternatives are available to you in achieving your goals.

Top-Heavy Plans

Beginning in 1984, all plans (espe-

The author is vice president and general counsel of The Nyhart Company, Inc., 3505 N. Washington Blvd., P.O. Box 88187, Indianapolis, Ind. 46208. The company serves as an employee benefit consultant and actuary.

cially those for professional businesses) will be scrutinized under a whole new set of anti-discrimination standards. Generally, if a retirement plan favors the key employees of the business in that more than 60% of the value of all accrued benefits or account balances is for this select group, the plan will be deemed top-heavy. If top-heaviness exists, the law requires that the plan provide (for each year that it is top-heavy) the following:

- more rapid vesting for the rank-and-file (either 100% after 3 years, or 20% per year beginning with the second year)
- limiting compensation for the key professional in determining contributions and/or benefits to the first $200,000
- requiring a minimum benefit: a) for defined benefit plans—2% of average of highest five consecutive compensation amounts multiplied by years of service (to a maximum 20%); b) for defined contribution plans—3% of compensation for each year the plan is top-heavy.

A "key employee" is defined as:

- officers (lesser of 3 or 10% of all employees, to a maximum of 50 officers)
- one of the 10 owning the highest interest in the employer
- 5% or more owners
- 1% or more owners whose compensation exceeds $150,000.

Lastly, if the present value of accrued benefits and account balances in a combination defined benefit/defined contribution plan is not more than 90% weighted in favor of the key employees, and the minimum benefits and contributions for the non-key employees are increased by 1-percentage point, the key employees will continue to retain the 1.25 rule for combination plans. If neither of the two requirements above are met, the 1.25 rule is slashed to 1.00.

In other words, if the participant maximizes his benefit in the defined benefit plan such that its fraction is 1.0, no extra benefit will be obtained in the defined contribution plan unless and until the 90% rule and the additional minimum benefit requirements are met.

As a general observation, most, if not all, "integrated" retirement plans of professional service corporations will be top-heavy. A combination of any one or more of the following factors will also indicate that a plan may be top-heavy, whether or not it is integrated:

- disparity in *compensation* between key employees and all others
- disparity in *age* between key employees and all others
- disparity in *service* between key employees and all others.

These new provisions, at least from a dollars-and-cents point of view, may not be as costly as one may be led to believe. Again, consult with your employee benefits specialist to see what impact, if any, the top-heavy rules will have on your retirement plan.

Integration with Social Security

Currently, defined contribution plans (including profit sharing plans) may integrate their contribution (or allocation) formula up to 7% in excess of the current taxable wage base ($32,400 for 1982). Beginning in 1984, TEFRA cuts the 7% to the OASDI rate (the old age security, disability income rate in effect for the year, 5.4%). This tax rate is scheduled to increase to 5.7% in 1985, then to 6.2% in 1990.

As you can see, this is a clear reduction in contributions that would otherwise be made on behalf of a highly-compensated individual. And, if the individual is expected to receive the maximum benefit permitted under a defined benefit plan, the cut in the integration rate made by TEFRA is forever lost.

Self-Employed Retirement Plan (H.R. 10 Plans) Rules Revamped

In 1984, the so-called "corporate" market comes to the unincorporated business (the sole proprietor, partnership, tax-option (subchapter S) corporation). Virtually all the Keogh rule restrictions as we know them today have been repealed but two: the definition of earned income has been revised and the current rule that prohibits the deductibility of contributions used to purchase life insurance inside a retirement plan.

Thus, the new TEFRA corporate limits of 100%/$90,000 for defined benefit plans and 25%/$30,000 for defined contribution plans will apply to *all* retirement plans (whether or not incorporated). Consequently, the need for incorporation in order to take advantage of the higher deductible limits disappears in 1984.

Many professionals who incorporated solely for purposes of taking advantage of the higher limits are permitted by TEFRA to disincorporate (or liquidate) in any one month in 1983 or 1984. Unrealized account receivables will not be imputed as income to the corporation. Of course, the income represented by these receivables will be deemed ordinary income and will be fully recognized as such by the distributee-shareholder upon subsequent collection or other disposition (such as a sale of the receivables).

Factors that should be considered in deciding whether to remain incorporated are:

- any limited liability offered by the corporate entity to the professional
- comparison of federal and state corporate income tax rates versus the tax structure as a partner or sole proprietor
- availability of other "deductible" employee benefit programs for corporate entities versus that for partnerships, etc.

Conclusion

It is strongly recommended you contact your employee benefits specialist as soon as possible. As you can see from this brief summary of the new law, there are many pluses and minuses in TEFRA, depending upon which side of the corporate fence you are standing on. Do not be convinced that the only relief after TEFRA is termination of your retirement plan(s). Many plan design techniques are still available that can assist you in meeting your retirement income goals. We can only recommend that you review all available options before deciding.

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Please see opposite page for brief summary of prescribing information.

**Meeting of Am Soc Colon/Rectal Surgeons, May 1980*
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Hemorrhoidal Suppositories with Hydrocortisone Acetate

ANUSOL-HC® CREAM
Rectal Cream with Hydrocortisone Acetate

Caution: Federal law prohibits dispensing without prescription.

Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25% bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian balsam, 1.8%; zinc oxide, 11.0 mg; also contains the following inactive ingredients: dibasic calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg, bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate in Anusol-HC helps to reduce hyperemia and swelling.

The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, and fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy: See "WARNINGS"

Pediatric Use: Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

Dosage and Administration: Anusol-HC Suppositories — Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove the tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories — boxes of 12 (N 0071-1089-07) and boxes of 24 (N 0071-1089-13) in silver foil strips with Anusol-HC printed in black.

Anusol-HC Cream — one-ounce tube (N 0071-3090-13) with plastic applicator.

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Selective Amnesia Affects Only Part of My Mind

A Humorous Trip Down Memory Lane

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The loser often has difficulty in recalling the size of the wager while the winner has instant and emphatic recall . . .

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MEMORY IS A kindly thing, gently erasing painful and unpleasant mistakes yet encouraging vivid recall of our pleasures and successes. The functions of long-term memory are said to be controlled by the thalamus while the short-term recollections are supposedly dealt with by the hippocampus. Various biomedical pathways may be the conduits by which memories are created and filed, awaiting recall on demand from some higher cerebral authority.

It all seems so simple, but as I slide into the mists of middle-aged senescence, I have a suspicion that some of my biochemical pathways are becoming overgrown. When asked by my wife to collect items from the grocery store, I usually manage to gather them correctly but in the wrong size, shape, color, or brand name; strangely, no such problem exists when I deal with my own requirements!

Of course, selective memory loss is not a new clinical finding. Golfers have suffered from it ever since they started counting their scores, and it is surprising how this selective amnesia and a few strokes with a pencil can eradicate so many strokes with a golf club. The act of winning or losing must involve different biochemical pathways because I have noticed that the loser often has difficulty in recalling the size of the wager while the winner has instant and emphatic recall.

At medical and social gatherings where the participants and guests wear name badges, I am spared some embarrassment, because while I never remember people's faces, I always forget their names. When I started the practice of medicine, I dreaded a social encounter with patients I had treated effectively, not because their numbers overwhelmed me but because I could never recall who they were or what I had done to them. Eventually, I resorted to the Disraeli Device, named in honor of the former British prime minister who was an outstanding practitioner of the art. If the conversation lasted more than a minute without the patient identifying either himself or the nature of my therapeutic triumph, I would ask, "And how is the old problem?" Latterly, I became more cautious in my approach after one patient replied, "The wife is very well, thank you."

Selective amnesia affects us in different ways. One friend with more than his share of peccadillos complained that his wife had the worst memory of anyone he knew—she remembered everything! Some years ago Groucho Marx was asked if was still chasing girls. "Certainly," he replied, "but I can't remember why." A fellow student turned in an anatomy examination answer sheet completely blank except for a drawing of a tombstone on which was inscribed, "Sacred to my memory which leaves me on occasions like this." We never knew if the examiners enjoyed the epitaph, but we did notice that they forgot to include his name on the pass list the next day.

The etiology of selective amnesia is unknown, and finding suitable treatment for sufferers from selective amnesia is not easy. One of the major credit card companies (I forget which) tried to help those of us who remember business meetings and financial transactions but always forget anniversaries and other celebrations. Once the card company had been notified of the recipient and the date, they would arrange delivery

of a suitable gift, year after year. It sounded like a helpful idea, but I have never seen the offer repeated so I assume it was ineffective in too many instances.

Even the wonders of the electronic age cannot always overcome the problem. I possess a pocket calculator which contains not one but two memories and should be able to recall data at the touch of a key. Unfortunately, I can never remember exactly which sequence of keys have to be pressed in order to activate the memory.

Folk medicine remedies abound and everyone has a favorite grandmother's aid-memoire to recommend. Books have been published listing anatomical and clinical mnemonics, but most of us have enough trouble remembering the real name without the added burden of remembering the mnemonic. I have tried putting knots in handkerchiefs to remind me to do something or other and now possess a drawerful of knotted handkerchiefs without having any idea of the subject the knots represented.

Drug treatment to improve cerebral circulation by vasodilatation or alteration of blood rheology has been tried but there are difficulties in establishing an objective measurement of improvement. A paper describing a rating scale to assess memory was published some years ago—but you've guessed: I've forgotten the reference.

The cure for selective amnesia may still be somewhere in the future, so until the answer is found, it is important that sufferers learn to deal with their handicap. A friend of mine heard an elderly acquaintance complain that because of failing eyesight, he was unable to follow the flight of a golf ball and had to give up the game. The younger man, moved by a desire to help, offered to play with the older man and be his eyes on the course, an offer that was accepted with alacrity.

As the first drive soared off the tee, the older man asked excitedly, "Did you see it, did you see it?"

"Yes," replied his companion, "I saw it clearly."

"Well, where did it land?"

"I can't remember."

I do recall reading that when asked if he could explain his phenomenal intellectual abilities, Einstein replied that he liked to keep his mind clear for the germination of ideas and so he never bothered to remember facts that could easily be looked-up or verified. I am not sure if this qualifies as a genuine manifestation of selective amnesia, but it does provide a rational explanation and excuse for some of us.

Perhaps I am a latent genius using selective amnesia to keep my mind untrammelled and prepared for new ideas.

U.S. Population Trends

THE POPULATION Reference Bureau, a Washington-based research organization, has discovered a number of interesting and useful trends in the U.S. population over the past 10 years. Among others, some of these are:

- Life expectancy rose by 3.4 years (much higher than the projected 0.5 years) as mortality from heart disease and strokes dropped sharply;
- Rural and small-town population growth outpaced metropolitan growth for the first time in 150 years;
- Household size dropped due to low fertility, one-parent families and small, non-family households;
- A baby boom "echo" failed to materialize; of the projected 40.1 million births, only 33.2 million babies were actually born in the Seventies.

Forecasts made by the Bureau for the U.S. population in the 1980s include predictions that:

- The fertility rate will stay low in the next few years; between 1.8 and 2.1 million births will climb to 4 million because of the large number of women in the childbearing ages (55 million);
- Birth rates among women in their thirties will continue at half the rates for younger women, and "continued delayed marriage will keep fertility rates low for teenagers and women in their early twenties;"
- As many as 25% of women now in their twenties will remain childless;
- Life expectancy for U.S. men will crack the 70-year mark in the 1980s and be up to 71.9 years in 1990;
- Female life expectancy will reach 80 by 1990 so the female-male life expectancy gap will remain.

Source of information: *The Nation's Health,* August 1982.
Reprinted from *Action in Pharmacy,* October 1982.



AS I SEE IT

Richard L. Reedy, M.D.
Chairman
IMPAC

The Indiana Medical Political Action Committee (IMPAC), created about 25 years ago, is the Indiana State Medical Association's political voice. IMPAC's purpose is to study the records and platforms of officeholders and candidates and to provide support, both financially and on the grassroots level, to those who have demonstrated a willingness to listen to ISMA's views.

IMPAC supports candidates who support free enterprise, support Constitutional government, and have a chance of winning. How is that determined? Primarily by having a candidate address the IMPAC Board of Directors or by Board members in the various Congressional districts interviewing candidates "on site."

At the state level, candidates are evaluated primarily by IMPAC lobbyists. ISMA has an attorney who serves as a full-time legal counsel lobbyist. He and the two ISMA field representatives make calls during the summer months on all candidates for the State Legislature. They recommend who should or should not be supported.

IMPAC is a voluntary, non-profit, bipartisan organization. Its Board consists of physicians and their spouses, and every member serves without pay. IMPAC Board members are selected by the ISMA Board of Trustees from medical rather than Congressional districts, with one physician and one physician spouse representing each ISMA district. Members serve three-year terms, staggered. They may serve a maximum of two three-year terms.

To keep ISMA's political voice in tune, IMPAC is always anxious to increase its membership. A variety of membership categories offer ISMA members an opportunity to be heard. Dues, which begin at $70 per year, depending on the type of membership requested, are explained in full on the annual ISMA membership dues notice.

Last year, 41% of ISMA members chose to support IMPAC. The Board hopes to top that figure this year in preparation for the general elections in 1984.

FTC Jurisdiction: How They Voted

In recent House action concerning the battle to prohibit the FTC from exercising jurisdiction over the professions, five Indiana Congressmen voted against the now-defeated Broyhill amendment and six voted in favor of the Luken-Lee amendment (H.R. 3722).

The Luken-Lee amendment, which provides for a moratorium on FTC actions against the professions, was adopted by the House 242-155 on Dec. 1. The Broyhill amendment, which was opposed by the ISMA, had been labeled as a "compromise" by its supporters.

ISMA joins the AMA in its desire to see that language prohibiting the FTC from exercising jurisdiction over the professions is contained in whatever appropriations legislation Congress passes in this session. Regardless of the form of the appropriations legislation—a regular bill or another continuing appropriations resolution—Senator McClure (R-Idaho) again planned to introduce his amendment to prohibit the FTC from using funds appropriated in the legislation for regulation of the professions. ISMA supports the McClure amendment.

(Yet another substitute, the Rudman amendment, is very similar to the Broyhill amendment; it, too, is unacceptable because it would specifically allow the FTC to exercise jurisdiction over the professions.)

At press time, the Senate had not yet voted on the Luken-Lee amendment or the McClure amendment.

ISMA members are urged to contact their Senators to register support for the McClure amendment.

Here is how Indiana Congressmen voted on the Broyhill and Luken-Lee amendments:

BROYHILL: Voting "Yes" were Kate Hall, Floyd D. Fithian, Lee H. Hamilton, Andrew Jacobs Jr. and Phillip R. Sharp; voting "No" were Daniel R. Coats, David W. Evans, John P. Hiler, Elwood H. Hillis and John T. Myers. Joel Deckard did not vote.

LUKEN-LEE: Voting "Yes" were Daniel R. Coats, David W. Evans, Lee H. Hamilton, John P. Hiler, Elwood H. Hillis and John T. Myers; voting "No" were Katie Hall, Floyd D. Fithian, Andrew Jacobs Jr. and Phillip R. Sharp. Joel Deckard did not vote.

UPDATE ON THE FTC BATTLE

By Donald F. Foy, Executive Director
Indiana State Medical Association

During the early days of December, organized medicine won a great victory in the House of Representatives when it rejected a so-called Broyhill substitute amendment and incorporated the language of a Lukens-Lee amendment in extending the life of the Federal Trade Commission. The Lukens-Lee amendment would provide for a moratorium on further activities of the FTC with respect to the learned professions unless specifically authorized by Congress.

The battle then shifted to the U.S. Senate where in May 1982 the Senate Commerce Committee, by a 2-1 vote, adopted language introduced by Senator McClure prohibiting the FTC from exercising jurisdiction over the professions. In the waning days of the lame duck session, Senator Rudman successfully amended (with a Broyhill-type substitute) the Continuing Resolution in the Senate Appropriations Committee to give the FTC specific authority over the learned professions although restricting that authority only in the area of licensure and related matters. This was definitely a step backward from our standpoint.

When the Continuing Resolution reached the Floor for consideration, Senators McClure and Melcher offered their amendment, which would have not only deleted Rudman's language but also would have placed a moratorium on all FTC actions against the learned professions. The amendment was called up at 5:30 a.m. on Saturday morning, December 18; however, Senator Rudman offered a tabling motion designed to thwart the McClure amendment. The tabling motion took precedence in the voting order.

Senator Rudman launched into a vicious personal attack on physicians. His remarks were ill-tempered half-truths at best. He underscored his contempt for the physician community by threatening to filibuster the entire resolution if his motion was defeated. Our vote count at that point was close but definitely on the positive side.

Because of the time factor, the lateness (5:30 a.m.) of the hour, the near exhaustion of the Senate, and the threat of a filibuster, the Senate capitulated and sustained the tabling motion. The Senate later adopted a Continuing Resolution incorporating Rudman's language giving the FTC jurisdiction over the professions.

Fortunately, a Joint House-Senate Conference Committee, in adopting a Continuing Resolution on Sunday, December 19, providing F.Y. 1983 funding for the FTC, denied it the authority to regulate the learned professions by defeating the Senate-adopted, modified Rudman amendment. By rejecting the language proposed by Senator Rudman, the House conferees clearly refused to acknowledge FTC's claims to oversee this nation's professionals or their organizations.

So after all the last minute maneuvering by Senators Rudman, Metzenbaum and their allies, the situation vis-a-vis the FTC remains unchanged. The action by the Conferees represents only a partial victory for our side. We still have not been successful in getting Congress to exempt the learned professions from FTC's self-imposed jurisdiction. That is our ultimate goal.

Nevertheless, there are several positive factors that should be noted:

1. The House has gone on record overwhelmingly in support of moratorium language.

2. The Senate Commerce Committee has gone on record by a 2-1 margin in favor of a moratorium.

3. The House-Senate Conference Committee has specifically rejected the Rudman (i.e. jurisdictional) language.

These are noteworthy events for two important reasons. They provide a solid political underpinning for future legislative battles and they establish a train of legislative history for use as a rebuttal to further legal action by the FTC.

Organized medicine must now look forward to a victory in the next Congress when the House and Senate will again have an opportunity to act to maintain the rights of physicians to carry out patient advocacy activities. Thank you all for your dedicated and sustained help during this long struggle. However, the war is not over yet, and your help will be needed again in 1983.








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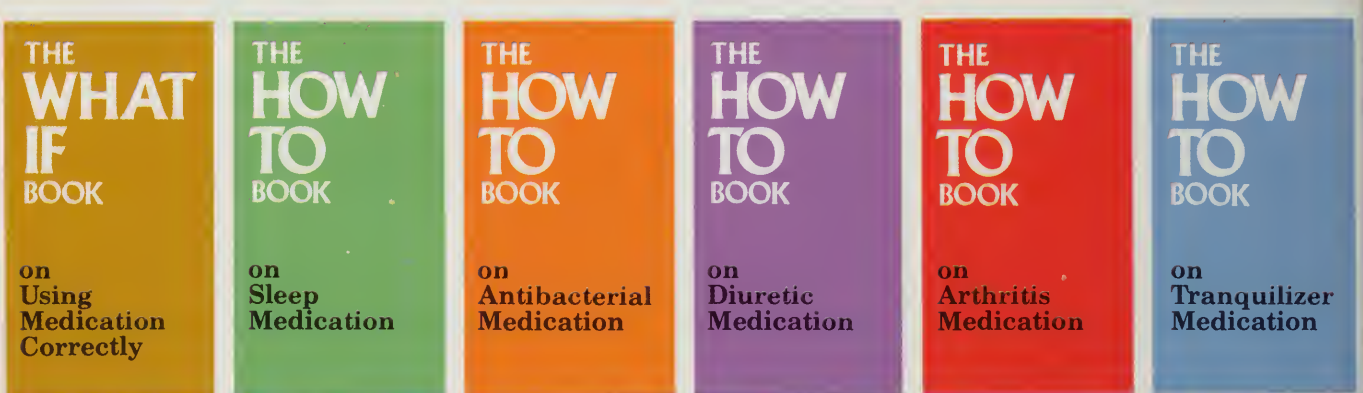
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Improving Patients' Compliance with Therapeutic Regimens

STUART J. COHEN, Ed.D.
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To obtain Category 1 credit for this month's article, complete the quiz on page 53.

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IN DISCUSSING THE problem of patients' noncompliance, I wish to emphasize three points:

1) The magnitude of noncompliance is much greater than most physicians realize;

2) When asked in a nonthreatening way, a patient's self-report of his or her compliance is fairly reliable; and

3) There are a number of strategies a physician can use that not only improve patient compliance, but also achieve therapeutic goals and improve patient health outcomes as well.

Numerous studies suggest that one-third of patients are complying with their therapeutic regimens as prescribed, one-third are complying with a regimen that they misunderstand, and one-third are not complying at all with their regimen. Obviously, the magnitude of noncompliance as a medical problem is considerable.

Assessing Compliance

Most physicians tend to assume that they are capable of determining who of their patients are complying and who are not. Unfortunately, this assumption is not substantiated by experimental research.[1] Several studies have been conducted to see the extent to which physicians' estimate of their patients' compliance corresponded with the patients' actual behavior. Not only were these estimates inaccurate but physicians tended to overestimate the amount of compliance of their own patients, and underestimate the amount of compliance of colleagues' patients. Surprisingly, even when family practitioners attempted to estimate the compliance of long-standing patients, they did little better than chance alone.

It would seem that a more reliable way of assessing compliance would be to look at the patients' health as an index of the extent to which they are complying. Unfortunately, this approach also is flawed. Theoretically, patients who comply with their regimens get better; patients who do not comply with their regimens do not. However, this is not always the case. Patients who do not comply sometimes get well. There also are occasions in which the patient adheres completely with the regimen and the treatment goal is not achieved.

While we generally are interested in the situation in which there is a poor treatment outcome and low compliance, we cannot infer that a poor treatment outcome is necessarily caused by poor compliance. However, failure to achieve the therapeutic goal should trigger the possibility of a compliance problem.[2]

Patient Self-Report

If the clinician is not a reliable source for assessing the degree of patient compliance, and we cannot work backwards from the health outcome to the degree of patient compliance, how then can we get a measure of the degree of patient compliance? Actually, there is a simple, direct and reasonably reliable way to find out. It requires "asking the patient" in a nonjudgmental way. When we ask patients to tell us what they are doing, and ask them in a nonthreatening manner, they generally tell us the truth, at least as well as they remember it. Furthermore, patients who admit to some degree of noncompliance usually are

most amenable to compliance-enhancing strategies.

I have been interviewing a number of patients in our diabetes clinic to obtain an estimate of how frequently they test their urine, and deviate from their insulin and diet regimens. I try to ask the question so that problems in departing from the regimen are acknowledged. For example, I might say, "Many patients either forget or decide not to test their urine. About how many days a week do you think you do not test your urine?" Or I might say, "Dieting is extremely difficult and many patients have problems staying on their diet. Some people have more difficulty staying on their diet when they're home and others more difficulty when they are away from home. Do you find that you have more of a problem in one place than the other? Is there any particular meal or any day or particular time of day that you find is the most difficult for you to stay on your diet?" Self-report, if not under duress, often provides valuable diagnostic information.

In summary, for research purposes, we would use multiple measures to assess compliance, including biological indices and self-report. For a clinician, patient self-report usually can suffice.

Determinants of Compliance

Once we have some idea of the magnitude of noncompliance, we need to be able to identify some of the factors that contribute to that noncompliance. Originally, it was assumed that the major reason for noncompliance was some kind of patient personality problem. A large number of research studies were initiated to find out what those personality characteristics were. In spite of popular beliefs, after years of research, no personality characteristic except for extreme psychotic conditions was found to predict noncompliance.[3] The same patient may be compliant with one component of his regimen and not another.

For example, we have found with our diabetes patients that they are more compliant with their insulin regimens than they are with their dietary regimens. The personality research was a behavioral scientist's nightmare. None of the presumed factors were predictive. Among the factors *not* predictive of compliance were educational level, intelligence, income, race, and sex. That is, sociodemographic and psychological variables failed to distinguish patients who were compliant from those who were not.

However, it was found that certain characteristics of the regimen *do* affect the degree of compliance.[3] First, the more complex the regimen, the more difficulty people have in adhering to it. It is easier to remember to take one rather than four pills a day. Second, the greater the behavioral change necessitated by the regimen, the more difficulty people have in complying with it. Adding something to a person's routine seems to be easier than changing an already established pattern. Taking a pill, for example, is easier than changing one's eating pattern. A third factor of the regimen which seems to be important is its duration. Chronic regimens are much more difficult to adhere to than those for acute illnesses. A 10-day course of penicillin is easier to follow than a lifetime course of antihypertensive medications.

Another determinant of compliance is the clinician's skill in communicating with patients. Communication can be powerful medicine. Patient compliance and satisfaction are greatest when the physician and/or other health professional has taken time to explain the regimen to the patient, explain the benefits and problems of the regimen, and help the patient adapt the regimen to everyday routines.

A major goal of communication is to diagnose compliance problems and the reasons for them. Essentially, there are four reasons why patients fail to adhere to a prescribed regimen: 1) they may not know what to do—that is, they lack knowledge; 2) they may know what to do, but not believe it is worth doing—that is, they have a negative attitude; 3) they may know what to do and believe it's worth doing, but fail to comply because they lack the skill to perform the task. For example, a diabetic may not be able to measure the correct insulin dosage or test his/her urine accurately; or 4) there may not be an adequate support system. Compliance is enhanced by a support system, especially social approval and encouragement that come from health professionals and families. The patient's spouse can support or sabotage the recommended regimens, both pharmacologic and dietary.

Patient Education

Given these problems, what strategies can be used to enhance compliance? When performed appropriately, education of the patient can increase compliance.[4] Far too often, the education is glossed over or the patient is given a pamphlet and expected to be able to use it in making adjustments in his/her life. For complex regimens, this will not be effective. Imagine yourself learning a new sport like tennis or golf and having someone give you a manual and say, "Here, read this pamphlet and you will become a good golfer or tennis player." It just doesn't work. I have read numerous tennis magazines and I still have an abominable forehand.

Learning new behaviors requires guidance. It is helpful if the patient has in hand a written summary of what should be done. The physician or allied health professional may write this out, or if possible, have the patient write it in his/her own words so that the physician or nurse can be sure that the patient understands what should be done after leaving the office.

In one study in a health center,[5] patients were interviewed right after they visited the doctor and about half of the recommendations were forgotten. Those physicians who were rated as giving high levels of instructions during the patient visit had patients with higher levels of understanding and compliance.

Unfortunately, a patient who can correctly specify the regimen may still not adhere to it. In a study called "Fail-

ure of Children to Receive Penicillin by Mouth," Bergman and Werner[6] found that although most of the parents could specify that the oral penicillin should be taken three times per day for a full 10 days, regardless of the symptoms of their child, fewer than half of the children were still adhering to that regimen after the third day. Therefore, while knowledge of the regimen is necessary, it is not sufficient to assure compliance.

Health Beliefs

Another factor that influences compliance is a patient's health beliefs. It's amazing what many people believe about their bodies and health-related actions. A 24-year-old male diabetic who worked on a factory assembly line told me he kept his feet elevated for about an hour after coming home from work. When asked why, he replied that diabetics can develop foot problems and that he could prevent those problems by raising his legs, thus keeping the sugar from settling in his feet! While this patient has some misguided notions about the pathophysiology of diabetes, he nevertheless was acting on the basis of his health beliefs.

Four kinds of health beliefs have been shown to be important.[7] The first is belief in susceptibility to the disease. This is particularly important with preventive actions, like immunization. Patients who don't view themselves as susceptible to untoward cardiovascular events are not likely to stop smoking or stay on antihypertensive regimens. The second important belief is the perception of the severity of having the disease. Many of us have been told by our dentists to floss our teeth at least daily. How many times do we follow that advice? We may not view the consequences of nonadherence as serious.

The third set of beliefs are the benefits perceived from engaging in the recommended preventive action (e.g., this medicine will reduce my pain or decrease the likelihood of my going blind from diabetes). That is, do patients really believe that the regimen is going to be effective and benefit them? Finally, are patients' beliefs that the barriers to engaging in the regimen are surmountable. For example, taking cholestyramine (Q.I.D. sand) probably requires a belief that the benefit outweighs the adverse consequences.

SMOKING GOAL SHEET

1. I would like to quit smoking. ____Yes ____No.
   If so, I will quit smoking on _____.
   Method to be used _____.
   Used before _____.
   If not, I would like to cut down my smoking. ____Yes ____No.
2. My goal is to smoke no more than _____ cigarettes a day.
   I now smoke _____ cigarettes a day.
3. I will read the booklets given to me on smoking. ____Yes ____No.
4. I will attend the American Lung Association Smoking Clinic on _____ or I will call the American Lung Association at 634-5864. ____Yes ____No.
5. I understand that I will be called in 2 weeks and 6 weeks by the nurse to see how I'm doing.
   I know I can call 630-6232, Monday through Friday, if I have questions or problems.

_____ _____
Signature of Patient *Health Care Professional*

_____ _____
Phone *Date*

Patient Support

The final reason for noncompliance is lack of adequate social support. There are at least three ways a physician can provide support. First is to tailor the medical regimen to the patient's life style. We have seen countless situations in which minority group patients are placed on the "American Prudent Heart Diet," which is a white, middle-class diet. The result has been an abysmal failure. You cannot change people's eating behaviors so drastically and expect them to adhere. When the regimen requires an enormous change of everyday behavior, the result, more likely than not, will be a failure. If a patient has a busy and varied daily schedule, then T.I.D. or Q.I.D. medications are courting disaster.

A second method of enhancing the support system involves goal-setting between patients and clinicians. Mutual goal-setting with follow-up phone calls has been shown to enhance compliance with diabetic regimens[8] and to increase adherence to antihypertensive regimens.[9] The Smoking Goal Sheet (boxed item) is an example of a goal-setting agreement we use with our diabetes patients who are cigarette smokers. They take a copy and we keep a copy in their charts.

The research on contracting or goal-setting indicates that written contracts produce greater adherence than oral contracts. Written contracts serve as a basis for follow-up calls by support staff to monitor problems. If problems occur, the contract can be renegotiated to everyone's satisfaction.

The final and easiest support strategy is to encourage patients' efforts and praise their successes. Too often we attempt to motivate patients just by fear. "By the way, Joe, if you don't follow your diet, you will go blind, your kidneys will fail and we will amputate your leg." We can learn a lot from Madison Avenue advertisers who succeed when they ACCENTUATE THE POSITIVE.

By now, you should be asking if a physician in a busy practice can really use these strategies to alter compliance and will they be effective? In one interesting study in the general medicine clinic at Johns Hopkins Hospital, half the house staff was randomly assigned to a seminar about the importance of

patients' health beliefs in affecting their patients' compliance.[10] Consequently, these physicians spent less time with patients in obtaining history of the patients' symptoms and more time in exploring the patients' health beliefs and educating them about cost/benefit factors in adhering to their regimen. The result was that a significant percentage of their patients not only increased their knowledge of hypertension and reported an increased compliance with their antihypertensive regimens, but more importantly, a significantly greater percentage of patients brought their blood pressure under control.

In conclusion, noncompliance is a major health problem, but it is one you can affect. You can enhance compliance by keeping regimens simple but potent, and encouraging patients to participate in their own care. Most important of all, as part of every patient history, you should monitor your patients' potential compliance problems. If you need a memory aid, put a sticker or special marker on the chart of patients with potential or self-confessed compliance problems. Your actions cannot only help increase compliance with your prescribed regimens, but more importantly can maximize the probability that your patients will achieve their treatment goals.

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Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
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Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	MERCAPTOPURINE	MERCAPTOMERIN
Category:	Antineoplastic	Diuretic
Brand Name:	Purinethol, BW	Thiomerin, Wyeth
Generic Name:	Mercaptopurine	Mercaptomerin sodium
Dosage Forms:	Tablets	Injection

	DOPAR	DOPRAM
Category:	Parkinsonism	Analeptic
Brand Name:	Dopar, Norwich-Eaton	Dopram, Robins
Generic Name:	Levodopa	Doxapram
Dosage Forms:	Capsules	Injection

Nuclear Cardiology: An Overview

LAST OF 3 PARTS

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MICHAEL L. SMITH, M.D.
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In the first two sections of this three-part series on nuclear cardiology, myocardial perfusion imaging and radionuclide angiography were discussed. In this final section, we will concentrate on myocardial infarct—avid imaging before concluding with a brief look at several new and exciting techniques which may soon further expand the clinical usefulness of nuclear cardiology.

Myocardial Infarct—Avid Imaging

Many agents have been shown to concentrate in the region of acute myocardial damage, including gallium-67 citrate, technetium-99m tetracycline, technetium-99m glucoheptonate, various anti-heart antibodies, technetium-99m heparin, and various phosphate compounds labeled with technetium-99m.[40]

Because of its ready availability in virtually every nuclear medicine department where it has been widely used in the past for bone scanning, technetium-99m labeled stannous pyrophosphate (Tc-99mPYP) has become the agent of choice. Using this agent, investigators have demonstrated the capability to image both acute transmural and non-transmural (subendocardial) myocardial infarcts which are greater than or equal to 3 grams in weight when serial myocardial imaging is performed from 24 hours to six days following onset of chest pain.[41] The appropriate scanning time is extremely important in this type of study, as scans performed less than 24 hours or more than five to seven days post-infarct can be falsely negative.[42]

Technical Considerations

Technetium-99m stannous pyrophosphate is injected intravenously approximately two hours prior to scanning. This permits satisfactory clearance of the radioactive tracer from the blood pool with appropriate localization in any area of myocardial damage (*Figure 5*). Early scanning may result in a false-positive image due to retained activity inside the cardiac blood pool.[42]

Abnormalities are generally graded on a scale of 1+ to 4+, with 1+ suggesting faint uptake, 2+ suggesting myocardial uptake of the same intensity as that of the overlying ribs and sternum, 3+ consistent with localized cardiac uptake somewhat greater than the bony structures, and 4+ being markedly greater than the intensity in the bone and/or a "doughnut" pattern of radioactivity seen as a ring of radioactivity over the heart. This latter pattern usually signifies a very large anterior wall myocardial infarction, and is thought due to an area in the center of the myocardial infarction with very low blood flow which prevents accumulation of the intravenously injected radioisotope.

Clinical Utility

Tc-99mPYP scanning adds little diagnostic information in the setting of acute myocardial infarction clearly documented by characteristic electrocardiographic and serum enzyme changes. Myocardial infarct—avid imaging may be of considerable clinical utility, however, in a patient with recent chest pain and an uninterpretable electrocardiogram (for example, left bundle branch or diffuse ST-T wave abnormality of unknown cause).

Tc-99mPYP scanning also may prove very useful in a patient with a history of chest discomfort several days prior to presentation in the setting of ECG evidence of a "time indeterminate"

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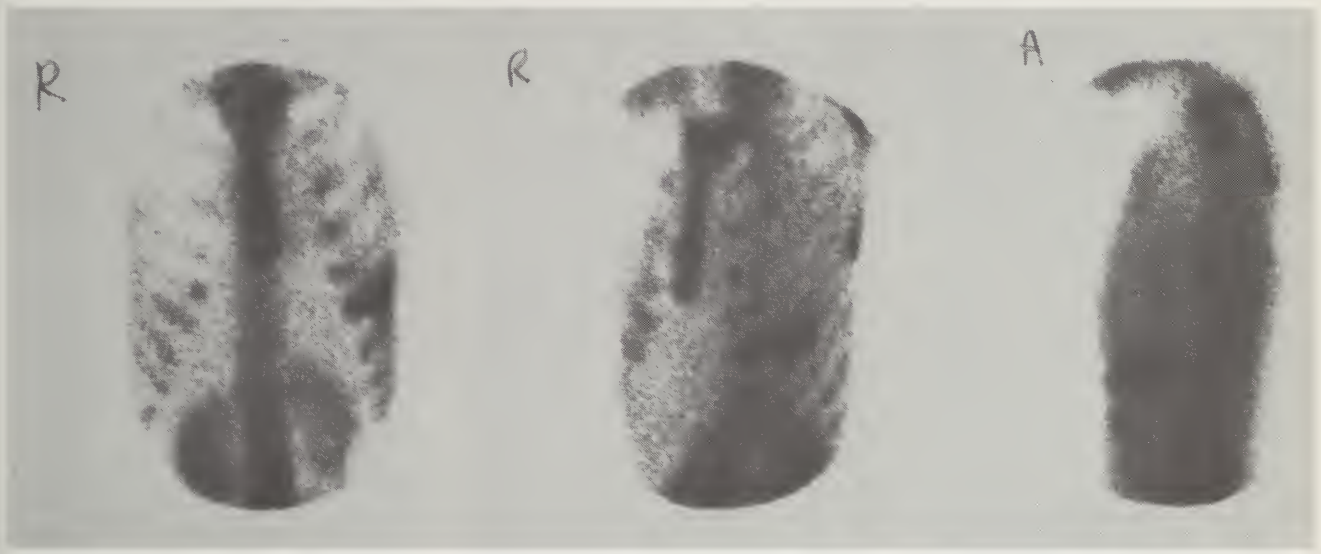


FIGURE 5-A

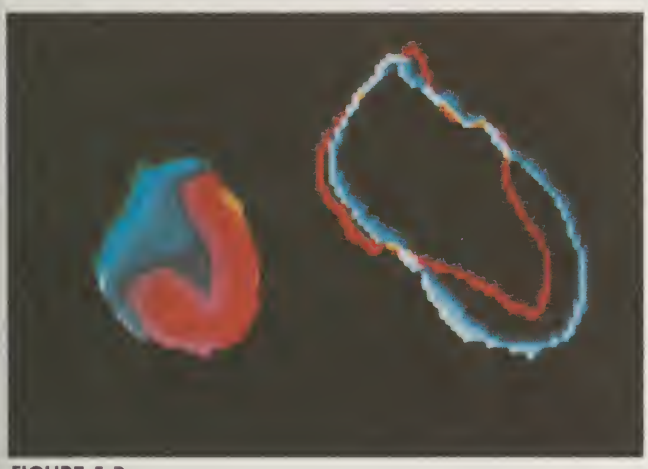


FIGURE 5-B

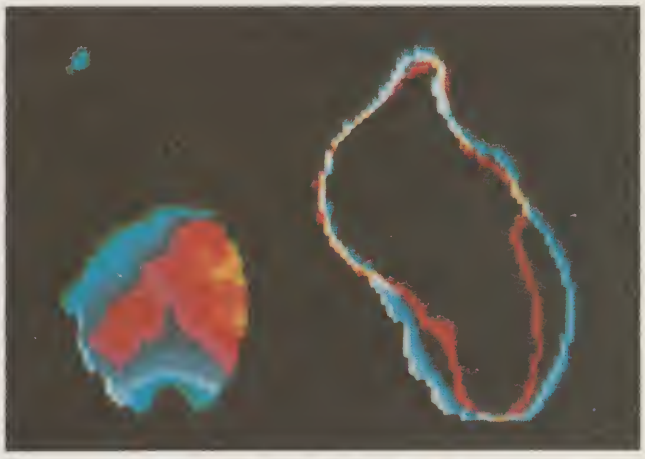


FIGURE 5-C

FIGURE 5: Panel A. Inferoapical myocardial "hot spot" (3+) due to accumulation of Tc-99mPYP. This image was performed forty-eight hours post-onset of chest pain. Associated changes in this patient's left ventricular wall motion are reflected by first pass radionuclide angiography performed forty-eight hours before (Panel B) and forty-eight hours following (Panel C) the acute myocardial infarction. Note the new area of hypokinesis in the inferoapical wall in Panel C when compared to Panel B. The new area of hypokinesis, as expected, corresponds exactly to the "hot spot" in Panel A.

myocardial infarction. A positive Tc-99mPYP scan in either of these groups should be considered strongly suggestive of recent acute myocardial infarction.

When appropriately performed in the proper clinical setting with multiple projections being analyzed, Tc-99mPYP scanning correctly identifies approximately 90-95% of patients with acute myocardial infarction.[43]

False-negative images generally result from very small, usually subendocardial, myocardial infarctions, particularly those located on the inferolateral wall. False-positive images can result from a myriad of causes, including failure of the blood pool to clear, unstable angina pectoris, and uptake by other myocardial abnormalities (e.g., old myocardial scar, myocardial sarcoidosis, myocardial tumor, myocardial calcification, etc.).

To further enhance diagnostic sensitivity and specificity, one may use dual imaging with thallium-201 and technetium-99m pyrophosphate. Berger, *et al,* have reported 100% sensitivity with 85% specificity using such dual imaging in patients with acute myocardial infarction.[44]

It is of interest that patients with persistently positive Tc-99mPYP images (greater than two weeks post-myocardial

infarction) have a higher than expected post-myocardial infarction complication rate from congestive heart failure, significant arrhythmias, and sudden death.[45] Failure of the center of the "doughnut pattern" to fill in several days post-myocardial infarction also carries a bad prognostic implication for that individual patient.[40]

As noted above, Tc-99mPYP myocardial scans may be falsely positive for "infarction" in the setting of unstable angina pectoris. Interestingly, those patients with unstable angina pectoris with transiently abnormal scans are at very high risk when managed medically. Olson and his associates reported that 33% of patients with unstable angina and abnormal Tc-99mPYP images died from cardiac causes, compared with 6% of similar patients with negative scans.[46] Therefore, this test may become clinically useful in the setting of unstable angina pectoris to assess the possible need for urgent aggressive surgical intervention.

Summary

Tc-99mPYP myocardial scanning is useful in assessing patients who present with possible acute myocardial infarction and equivocal or uninterpretable electrocardiographic changes. The scan should be timed to coincide with a period of time approximately 24 hours to five days following suspected myocardial infarction to avoid a high incidence of false-negative results. In addition to the diagnostic information of acute myocardial infarction, prognostic information can be achieved with this technique.

The patient with acute myocardial infarction who fails to develop a negative scan several weeks after his myocardial infarction, or who fails to fill in the center of a "doughnut" pattern, is at high risk of cardiac complications in the first several months after the event.

Finally, individuals with unstable angina who have a transiently abnormal Tc-99mPYP myocardial scan have been shown to be at high risk for cardiac death after the first several months when managed medically.

Nuclear Cardiology: The Future

At present, accurate, reproducible, clinically useful information can be derived using myocardial perfusion scintigraphy with thallium-201, radionuclide angiography with technetium-99m, and myocardial infarct—avid imaging with technetium-99m labeled stannous pyrophosphate. Despite their obvious usefulness, these techniques continue to suffer from the use of radioactive isotopes with relatively long decay times, resulting in unnecessary radiation exposure to patients (approximately equivalent to several chest x-rays). New isotopes with very short half-lives are being developed to reduce radiation exposure without sacrificing image quality.[47]

Because thallium-201 has less than favorable imaging properties due to its low energy, new tomographic techniques including 7-pinhole tomography,[48] and single positron emission computerized tomography (SPECT)[49] are being developed to improve image resolution and diagnostic accuracy of thallium-201 stress testing. Other investigators are working with technetium-99m labeled fatty acids which are actively taken up by the myocardium in a fashion similar to thallium-201.[50] Because technetium-99m has more favorable imaging properties than thallium-201, this type of study may some day prove quite useful in myocardial perfusion imaging.

New tests currently being developed include gallium-67 citrate imaging to identify inflammatory components of myocardial infarction, bacterial endocarditis, and congestive cardiomyopathy.[51] Gallium-67 scanning also may prove useful in diagnosing inflammatory pericarditis, particularly in the post-"open heart" surgery patient.[52] Another approach to the diagnosis of inflammatory cardiac disease, particularly valvular endocarditis, involves imaging following the injection of indium-111 labeled platelets or white blood cells. Indium-111 labeled platelets also are deposited in the region of acute coronary artery thrombosis, thrombosis in saphenous vein coronary bypass grafts, carotid artery plaques, mural thrombi, and aortic aneurysms.[53]

New gamma emitting radiotracers which can be incorporated into biologically active molecules include iodine-123, indium-111, and tellurium-123m. Preliminary results have been reported on labeled cardioselective beta-adrenergic antagonists, norepinephrine storage analogues, acetylcholinesterase enzyme inhibitors, arachidonic acid (a prostaglandin precursor), and various fatty acids. Technetium-99m labeled heparin has been shown to be both infarct-avid and clot-avid in preliminary reports.[54]

Positron emission tomography (PET), which utilizes extremely short-lived (minutes) isotopes, may permit extremely accurate resolution scanning to be performed with very low radiation exposure to the patient.[55] Furthermore, the isotopes used in positron emission tomography are metabolically active, and therefore reflect not only regional myocardial perfusion but also regional myocardial metabolism.[56] Positron emission tomography, therefore, would seem to have enormous potential for application in serial studies involving myocardial ischemia and/or myocardial infarction.[57]

The main technical limitation of PET at the present time is the requirement that these isotopes be cyclotron produced. Transportation of the isotope to the site of usage, therefore, is extremely problematic due to the distances involved and the short half-life of the isotope.

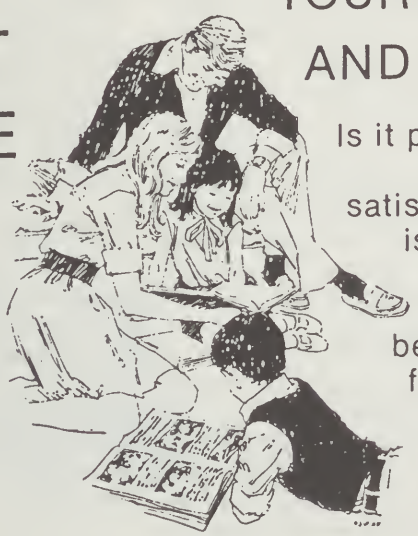
It seems likely that the future of cardiac imaging will fall to either positron emission tomography, if isotope production, transportation, and delivery problems can be solved, or to nuclear magnetic resonance (NMR), a non-isotopic imaging technique which presently requires extremely expensive, bulky super-conducting magnets to display anatomic and metabolic detail.[58]

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Otologic Disorders in Children

LAST OF 3 PARTS

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Sensorineural hearing loss is common in children and is not correctable by medical therapy or surgical intervention.

Congenital Sensorineural Hearing Loss

Rubella during pregnancy may result in hearing impairment from a mild to a total loss of auditory perception. Prevention by appropriate vaccination is presently the only means of combating this problem. Hereditary factors, prematurity, Rh incompatability, and ototoxic drugs taken by the mother during pregnancy have been responsible for sensorineural hearing loss in the newborn. Any ototoxic drug can cause deafness in the newborn by crossing the placental barrier.

Developmental Anomalies

Agenesis and cochlear deformities and malformations are causes of congenital sensorineural hearing loss. Polytomes of the temporal bone can detect these impairments. Improper development of the central auditory pathways can now be diagnosed with auditory brain stem response testing.

Familial Hearing Loss

Children can be born with normal hearing which suddenly begins to deteriorate. The loss may progress rapidly to total deafness. There are forms which may not become apparent until the teenage years or later in adult life.

Acquired Sensorineural Hearing Loss

Infectious Causes: Viral infections associated with hearing loss are mumps, measles, and influenza. Bacterial invasion of the inner ear can occur from an acute or chronic otitis media. Bacterial meningitis will also cause a sensorineural loss and commonly the loss is bilateral.

Drugs: As a general rule any drug that must be given parenterally to be effective is a potentially ototoxic drug. Streptomycin, Neomycin, Gentamicin, Tobramycin, carbenicillin, kanamycin, and Polymyxin B are common examples. There is usually a correlation between dosage and the severity of the resulting sensorineural loss. Any degree of renal impairment can increase the ototoxicity of the drug. Ethacrynic acid (Lasix), salycylates and arthritic preparations may also affect hearing.

Tumor

A child with a unilateral sensorineural hearing loss can have a tumor such as osteogenic sarcoma, Ewing's sarcoma and undifferentiated squamous cell carcinoma. Polytomes of the temporal bone are helpful in the diagnosis.

Sudden Hearing Loss

An unexplained sudden nerve loss may occur. When associated with strenuous exercise, a fistula from the inner ear through the oval window or round window is a possibility. Closure of the fistula via middle ear surgery can arrest the process and possibly reverse the loss. When a sudden loss occurs in an only hearing ear, treatment consists of vasodilators such as intravenous histamine therapy, carbon dioxide inhalations and nicotinic acid.

In bilateral sensorineural hearing loss it is most important that children be fitted with wearable hearing aids as soon as the diagnosis is made. Numerous

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studies have shown that a large proportion of so-called deaf children have sufficient residual hearing to enable them to respond to and recognize the majority of sounds in their environment through a wearable hearing aid.

Actually few, if any, children who have been considered deaf really have no residual hearing. Until one obtains information to the contrary, all deaf children should be treated as partially deaf—hence, candidates for amplification to boost their hearing, followed by intense speech therapy. If audition is established within the first two years of life, the child can acquire a language during the normal psychologic and physiologic periods of language growth. The longer the deprivation of sensory input continues, the greater are the chances that the child will remain depressed in language skills.

The child with severe hearing impairment, deprived of sensory input, either does not develop speech or may with some training develop very limited speech. Since most hearing impaired children can benefit from amplification, hearing aids can provide a means to maximize the remaining hearing ability. Early intervention and appropriate management result in markedly improved language skills and educational achievements of hearing impaired children.

Mixed Hearing Loss

Traumatic injuries to the head are almost a part of the childhood years. Varying degrees of head injury can result in pure conductive, pure sensorineural, or mixed hearing loss. Closed head trauma or the intrusion of an object through the tympanic membrane, e.g., bobby pin, Q-tip, or a stick, can lead to ossicular disruption and possible nerve damage. Appropriate audiometric studies and polytomes of the temporal bone, in association with microscopic examination of the ear, can clarify the likely source of the hearing loss and which components of the loss may be surgically corrected (eardrum perforation, ossicular dislocation) and thus completely correct the conductive component of the loss, and which aspects of the hearing loss may or may not be nerve in etiology and benefited only by possible amplification.

Summary

Hearing disorders in children are a challenging aspect of the practice of neuro-otology. Early detection and treatment of ear disease in children now prevents many of the complications once so prevalent.

Establishing that a child has a hearing loss at the earliest possible age can change the whole course of that individual's life. In sensorineural hearing loss, a properly fitted hearing aid at a very early age will benefit the child's communication even in the face of severe loss. Conductive losses are usually correctable with appropriate medical and/or surgical intervention and the child can expect to lead a normal life.

With modern methods of examination and diagnosis, most children can be spared the vast difficulties that accompany hearing impairments.

The rehabilitative road is a long and hard one. It is fraught with slow progress and disappointments. It is strewn with the unrealistic hopes of over-enthusiastic parents. But, with persistence, it is a rewarding one.

There are two important things to remember. First, seeking help for pediatric otologic problems cannot be done too early. Second, when dealing with a neurosensory hearing loss, progress is made only in following a well counseled program of medical and rehabilitative measures.



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Cardiac Surgery in the 8th and 9th Decades of Life

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JOHN F. ANSBRO, M.D.
Evansville

IS THERE AN UPPER age limit for considering cardiac surgery? This question has already been answered. Many centers have reported good cardiac surgical results in the over-70 age group. What has not been so carefully looked at, however, is the question of case selection. Exactly who should be operated upon? Is there an analogy to gall bladder surgery here? That is, how much greater is the risk if elderly patients are left with a chronically symptomatic cardiac condition until they present with an acute emergency that only surgery can treat?

One problem with evaluating the literature is that reported mortality rates vary depending upon classifier words like "elective" vs. "urgent" vs. "emergency." This was true of Quinlan's report about cardiac surgery in the elderly.[1] For example, they noted an operative mortality for elective cardiac surgery of 11% and an emergency operative mortality of 40%.

Canepa-Anson's 10% operative mortality for aortic valve replacement in patients over 70 applied only to elective patients.[2] Their risk of emergency cardiac surgery was 75%. In Stephenson's series 6/12 or 50% of salvage patients operated upon "in extremis" survived.[3] We are all familiar with the scenario where operating merely changes an inevitable "medical" death into a surgical mortality. Does the aged patient who before the operation is suffocating from congestive heart failure, and who dies during surgery, indeed represent a failure? If so, what kind of failure is it? Is it a failure to recognize that the patient needed surgery 10 years earlier, before the heart suffered irreversible myocardial damage? Or is it a failure of surgical technique?

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Such elderly patients constitute 10% of our own case load. . .

These questions confronted us as we reviewed our own surgical results in the over-70 age group. We were surprised to find that such elderly patients constitute 10% of our case load. This percentage is higher than some series (1.3% over 70 at the London Chest Hospital,[4] 6.5% at St. Vincent's Hospital, Indianapolis[5]) but is similar to one other (10% at the Maine Medical Center).[6] An analysis of our results and indications in this group is thus instructive.

Material and Methods

The Deaconess Hospital charts of *all* cardiac surgery patients over age 70 who were operated upon between January 1978 and March 1982 were reviewed. Length of stay data for coronary artery bypass patients also were analyzed. Since the majority of patients exhibited class IV heart disease, many of whom required urgent surgery, no attempt was made to classify the patients into elective versus emergency categories. This report thus differs from several others in that raw mortality data rather than data from selected patients is presented.

Results

A. *Coronary Artery Disease:* Of 84 elderly patients operated upon for coronary artery disease, three also required left ventricular aneurysm repairs, five also received simultaneous carotid endarterectomies, and seven required insertion of an intra aortic balloon. Sixty-one displayed NYHA class IV unstable (rest) angina, 13 had suffered a recent myocardial infarction (three of whom were hyperacute and associated with early cardiogenic shock). Only 10 aged patients had stable, medically refractory angina.

Five of these 84 patients died within 30 days. Of these, two died of cardiac-related causes: one died of pump failure after an acute pre-operative myocardial infarct, and another succumbed five days after surgery of uncontrollable ventricular arrhythmias. The three non-cardiac deaths were due to pulmonary embolus, intracerebral hemorrhage, and sepsis (in a patient with lymphoma and recent chemotherapy). The median length of hospital stay after surgery was 10 days in the elderly compared to eight days for all CABG patients operated upon between 1978-1981 at the Deaconess Hospital. All but nine patients had three or more bypass grafts (average = 3.5 grafts per patient).

B. *Aortic Valve Disease:* Aortic valve replacement was performed as an isolated procedure in nine elderly patients. All survived. Ten patients underwent aortic valve replacement plus coronary artery bypass. Only one died (of a cer-

ebral hemorrhage). All these patients were severely symptomatic with either chest pain and/or heart failure. (NYHA class III or IV)

C. *Mitral Valve Disease:* Mitral valve replacement proved to be far more risky in our small series of elderly Class IV patients. Two of six died after isolated mitral valve replacement and both deaths were due to low cardiac output. Three of four elderly patients requiring mitral valve replacement plus coronary bypass died. However, only one died of cardiac causes. One died of a bleeding diathesis and another died a week later of renal failure that had been present preoperatively. All these "salvage" patients were in NYHA class IV.

D. *Miscellaneous:* One elderly patient who underwent both aortic and mitral valve replacements survived. One 80-year-old patient who had a tricuspid valve replacement and coronary artery bypass survived. Another patient who underwent mitral valve replacement plus a tricuspid annuloplasty died. All three of these patients were in NYHA class IV.

Discussion

A. *Coronary Artery Disease:* Our mortality rate for myocardial revascularization in the elderly (5.8%) compares favorably to that of others: e.g., Kay, *et al* 22/264 or 8.3% died;[7] Kennedy, *et al* 9/154 or 6% died;[8] Jolly, *et al*

The extent and acuity of the patient's heart disease, rather than his age, determines the risk of coronary bypass surgery. . .

13/102 or 12.7% died;[5] Nowicki, *et al* 5/80 or 6.3% died;[6] and 9/75 or 12% died at the Massachusetts General Hospital.[9] Surgical mortality rates for *comparable* younger patients (e.g., those with unstable angina or recent infarction with continuing pain) are only slightly lower.

We thus feel that in properly selected cases it is primarily the extent and acuity of the patient's heart disease, rather than his age, which determines the risk of coronary bypass surgery. No data in the literature address the issue of whether survival in the elderly is improved by coronary artery bypass grafting (CABG). The four prospective randomized trials that have proven a survival benefit for CABG versus medical treatment did not include patients over age 65.[10]

Operative mortality rates for mitral disease in patients over 70 still are quite high. . .

We have thus limited CABG in the over-70 age group to patients who exhibit truly refractory symptoms. We operate mostly for symptomatic relief. We also hope, however, to alter the currently high mortality rate for myocardial infarction in older patients. Wilcox, *et al* have demonstrated that the mortality rate for myocardial infarction in the elderly (29-30%) is twice that of patients under age 65 (8-18%).[11]

The problem with using symptoms as a reason for surgical selection, however, is that symptom status does not predict which patient will have a myocardial infarct.[10] Every time a vigorous chronic angina patient over age 70 suffers an unexpected infarct and dies, we find ourselves asking the question: "Should we have catheterized him while he was having stable angina?" Only time and further study will answer this thought-provoking question.

B. *Valvular Disease:* A similar dilemma (a conservative cardiac surgical selection philosophy, and thus accepting a higher early and late operative mortality) exists when considering cardiac valvular lesions in the elderly. While valve replacement for certain subsets of young asymptomatic patients with aortic regurgitation has been recommended,[12] this indication has not been employed in patients over age 70.

To the extent that symptomatic disease is a prerequisite for repairing aortic stenosis, surgical risks and indications in the elderly do not differ from those in younger patients. We agree with Jolly, *et al*[5] that aortic valve replacement for aortic regurgitation should be performed when symptoms move the patient from NYHA functional class II to class III. If cardiac size increases, valve replacement also should be recommended.

Mortality rates for isolated aortic valve replacement over age 70 range from 0/9=0% in our series, versus 3/27=11%[3] and 6/27=22%[5] in others. Early mitral commissurotomy to repair mitral stenosis in the young patient, in hopes of preventing mitral valve replacement later, has been advocated by some. Mitral commissurotomy in the elderly, however, is a rare operation because valve replacement is generally needed. Tight mitral stenosis (valve area less than 1 cm^2/m^2) associated with congestive heart failure or severe passive pulmonary hypertension is our present indication for surgery in the elderly patient with mitral stenosis.

Gratifying surgical results have been achieved in elderly patients with combined aortic valve and coronary disease. . .

Operative mortality rates for mitral disease in patients over age 70 are still quite high. Others besides ourselves have discovered this fact: e.g., Stephenson (1978) 8/14 or 57% died, Canepa-Anson (1979) 1/8 ot 12.5% died, Jolly (1981) 6/21 or 28% died. Perhaps earlier referral of patients with mitral valve disease would improve the outlook of such patients.

For example, Kay, *et al* report an operative mortality of 1/29 patients over age 65. Their patients, however, were predominantly in class III. As they state, "The practice of withholding valve replacement from patients until they were end stage (class IV) cardiac cripples has fortunately been discarded. Most cardiologists now agree that when a patient deteriorates to a NHYA class III status (symptomatic while performing normal activities), the risk of operation, with its 5 to 10% mortality and 3% morbidity, is less than the risk of medical treatment, with its two-year mortality of up to 90% and 100% disability."

Patients with combined valvular and coronary disease represent the group

with the poorest medical prognosis. Gratifying surgical results have been achieved in elderly patients with combined aortic valve and coronary disease. Our own results in the over-70 group (1/10 or 10% died) compare favorably with those of others. Jolly, *et al,* for example, report a 9/24=39% mortality; Norwicki, *et al* report 1/10=10% mortality; also, Canepa-Anson 2/21=10% and Stephenson 1/10=10%.

Mitral valve replacement plus myocardial revascularization carries the highest mortality rate = 5/12 or 42% in Jolly's series, and 7/19 or 36.8% in Kay's series. Earlier case selection in such patients thus may be warranted.

Conclusion

We believe that elderly patients with symptomatic coronary artery disease and/or aortic valve disease should undergo cardiac catheterization. Surgical therapy in these groups carries a relatively low risk and provides excellent symptomatic relief and probably prolongs life. Elderly patients with mitral valve disease still present a considerable therapeutic challenge. Earlier surgery for these patients, before irreversible pulmonary and myocardial changes occur, appears warranted.

Addendum

Recently, the Louisville group reported a 25% mortality (two of eight patients) for coronary artery bypass in elderly patients operated at Jewish Hospital. All these patients were over age 75, and all of them had suffered a previous myocardial infarction.[13] We also found the mortality rate increases in this subset (one of 11 or 9% died at Deaconess Hospital).

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DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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State Health Commissioner

New information from
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Indiana State Board of Health
1330 W. Michigan St.,
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

Child Passenger Restraint Devices: 'Immunization' for Youngsters Against Traffic Accidents

There is a disease affecting Indiana children which is reaching epidemic proportions. It killed 83 children in Indiana in 1981 and seriously injured more than 6,000. It is estimated that 80% of these deaths and 70% of the injuries could have been prevented. Therefore, you say, this disease is curable, or at least treatable.

The disease? Automobile accidents. The immunization against it is simple—child passenger restraint devices. When to immunize is also simple—begin with the newborn's first ride home from the hospital, and continue reinforcement on each child health visit to the practitioner's office.

The American Academy of Pediatrics, the American Medical Association, the Indiana Public Health Association, and 18 state legislatures (including all those states surrounding Indiana, except Ohio) now agree that the cure to the "child passenger disease" is "immunization" enforced through legislation.

Tennessee has had a 75% reduction in serious injuries and deaths since enactment of mandatory child passenger safety legislation, not to mention the reduction in use of tax dollars contributed to medical care.

Indiana is attempting to deal with this issue of "immunizing" its young citizens. During the 1982 session of the Indiana General Assembly, a child passenger restraint bill was introduced. This legislation required all children under the age of 4 to be properly restrained while in private moving vehicles. This mandatory language failed; however, a bill did pass which requires the state to institute education programs to encourage the use of seat restraints.

One method of education has been the establishment of car seat loan programs. The Indiana Hospital Association's Hahn Educational Foundation, acting as the fiscal intermediary for a grant from the Maternal and Child Health Division of the Indiana State Board of Health, has been able to fund 47 separate car seat loan programs in the state.

Most of these programs are sponsored by community hospitals and some by community organizations. The loan programs enable those families unable to financially afford the purchase of their own seat to rent one. Most programs require a small deposit and/or rental fee with all or part of these fees reimbursed at the time the seat is returned. All programs are required to provide education to the recipients of the seats to help assure proper use.

Across the country, car seat loan programs have had a rippling effect. Once children are encouraged to "buckle up," so do parents.

Liability with such loan programs has not been a problem. A fact to consider is that liability could exist for the practitioner who fails to inform parents that a child's life could be in jeopardy if not properly restrained. For two years the Division of Traffic Safety of the Indiana Department of Highways has funded, through the James Whitcomb Riley Hospital, educational efforts which are aimed at hospital staffs. A number of regional education programs have been conducted as a result of these efforts.

As the "immunization" rate goes up, the senseless dollars spent on auto accidents go down. An estimated $14.4 billion is spent each year for those injuries incurred in motor vehicle accidents. This is more than is expended for the treatment of coronary heart disease and strokes and second to that of cancer treatment. There is no way to accurately estimate the number of childhood injuries and the ultimate costs of these.

How many children are only slightly injured and never see their private physician or the emergency room? Yet, that bump on the head may have a long-range effect. Brain injuries produce the largest hospital bills. On record is one case that has already cost an insurance company $335,000 and an estimate of $2.2 million for the treatment during the youth's lifetime—hardly a comparison to a $35 safety seat. Can we afford not to take the action necessary to ensure and "immunize" the children who represent our future?

Education for the professional has proven effective. However, education for the public in general has not been as effective. Studies have shown that only when the medical community "prescribes" and encourages on a one-to-one basis do parents listen and follow through with using a safety seat for their children.

Every Indiana driver has witnessed the following scenarios of disease: children standing in front seats of cars, children jumping from front to back seats, or children sitting on laps of drivers. Hopefully, you can say you were one of the practitioners/parents who has helped to eliminate this disease. "Immunize" our young citizens; buckle them up!

The next session of the legislature will again see a mandatory restraint bill introduced. Those who believe in required immunization of children against childhood diseases probably also believe in mandatory restraint of children in motor vehicles. One is no different from the other. Support of this legislation is one easy way to protect our little Hoosiers.

For further information, contact Kathleen Visovatti-Weaver at 317-633-8451.

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25,500,000 geriatric patients. The older patient may have some disorder or socio-economic problem that can undermine good nutrition.[2]

23,500,000 surgical patients. Nutritional stat can be compromised by the trauma of surgery; and some operations interfere with the ingestion, digestion and absor tion of food.[3]



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Indications: Prophylactic or therapeutic nutritional supplementation in physiologically stressful conditions, including conditions causing depletion, or reduced absorption or bioavailability of essential vitamins and minerals; certain conditions resulting from severe B-vitamin or ascorbic acid deficiency; or conditions resulting in increased needs for essential vitamins and minerals.
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Warnings: Not for pernicious anemia or other megaloblastic anemias where vitamin B_{12} is deficient. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with vitamin B_{12} deficiency who receive supplemental folic acid and who are inadequately treated with B_{12}.
Precautions: *General:* Certain condition may require additional nutritional suppl mentation. During pregnancy, supplem tation with vitamin D and calcium may required. Not intended for treatment of severe specific deficiencies. *Information for the Patient:* Toxic reactions have bee reported with injudicious use of certain vitamins and minerals. Urge patients to follow specific dosage instructions. Kee out of reach of children. *Drug and Treat ment Interactions:* As little as 5 mg pyridoxine daily can decrease the efficacy of levodopa in the treatment of parkinsonism. Not recommended for patients undergoing such therapy.
Adverse Reactions: Adverse reactions ha been reported with specific vitamins and

,000,000 hospital atients with nfections.[4] Many are ano-ctic and may have a markedly duced food intake. Supplements e often provided as a prudent easure because the vitamin sta-s of critically ill patients cannot readily determined.[3]

The incalculable millions on calorie-reduced diets. Patients ingesting 1000 or fewer calories per day could be at high risk because this intake may not supply most nutrients in adequate amounts without supplementation.[5]



minerals, but generally at levels substantially higher than those in Berocca Plus. However, allergic and idiosyncratic reactions are possible at lower levels. Iron, even at the usual recommended levels, has been associated with gastrointestinal intolerance in some patients.

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References: 1. Shaw S, Lieber CS: Nutrition and alcoholism, chap. 40, in *Modern Nutrition in Health and Disease*, edited by Goodhart RS, Shils ME. Philadelphia, Lea & Febiger, 1980, pp. 1220, 1237. 2. Watkin DM: Nutrition for the aging and the aged, chap. 28, in *Modern Nutrition in Health and Disease, op. cit.*, p. 781. 3. Shils ME, Randall HT: Diet and nutrition in the care of the surgical patient, chap. 36, in *Modern Nutrition in Health and Disease, op. cit.*, pp. 1084, 1089, 1114. 4. Dixon RE: *Ann Intern Med 89* (Part 2): 749-753, Nov 1978. 5. Committee on Dietary Allowances, National Research Council: Recommended Dietary Allowances, ed 9. Washington, National Academy of Sciences, 1980, p. 13.

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THE MULTIVITAMIN/MINERAL FORMULATION

WILLIAM M. DUGAN, JR., M.D.
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New information from
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American Cancer Society, Inc.
4755 Kingsway Dr., Suite 100
Indianapolis 46205
EVERY PHYSICIAN'S OFFICE—A CANCER DETECTION CENTER

CANCER CORNER

The following new publications might be of interest to you and to your patients. They are:

"What Black Americans Should Know About Cancer," available free from NCI's Office of Cancer Communications, Bldg 31, Room 10A18, Bethesda, Md. 20205. Stresses prevention, early detection, and prompt treatment, and refutes common myths. Health professionals may request multiple copies for distribution to patients. Also available free from OCC: "What You Should Know About Cancer," in English and Spanish; and "Cancer: What to Know, What to Do About It."

"Help Yourself—Tips for Teenagers with Cancer," includes a 40-page booklet and 40-minute audiotape for patients and a user's guide for health professionals. Addresses issues that concern adolescents with cancer. Free from NCI, OCC, Bldg 31, Room 10A18, Bethesda, Md. 20205. A limit of one per request for the package, which includes one each of the booklet, tape and user's guide; limit of 10 booklets and tapes.

"Atlas of Mortality from Selected Diseases," by Thomas Mason, Joseph Fraumeni, Robert Hoover, and William Blot, scientists in NCI's Environmental Epidemiology Branch. Maps of geographic variations in death rates across the United States for 59 conditions. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, order number 017-042-00157-9. $18 for the United States, Canada, and Mexico; $22.50 elsewhere.

"Oncology Overview," selected abstracts published in separate booklets by specific topics, by NCI's International Cancer Research Data Bank. Price ranges from $4.50 to $8, averaging about $6 each. Each requestor may receive up to three overviews free; ICRDB will provide price information on each title requested over the three free copies.

Clinical overviews currently available include:

Support Care of the Cancer Patient: Management of Infections & Hematologic Complications, No. OT-82-01; Treatment of Prostatic Cancer, No. OT-82-02; Diagnosis & Treatment of Bronchoalveolar Cancer of the Lung, OT-82-03; Intra-Arterial Chemotherapy in Cancer Treatment, OT-82-04; Diagnosis & Treatment of Malignant Pleural Effusions, OT-82-05; Diagnosis & Treatment of Pituitary Tumors, OT-82-06; Diagnosis & Treatment of Renal Cancer, OT-82-07; The Role of Thymic Factors in Cancer, OT-82-08; The Diagnosis & Treatment of Ocular Melanomas, OT-82-09; and Diagnosis & Treatment of Pancreatic Cancer, OT-82-10.

Request copies from ICRDB Program Office, National Cancer Institute, Westwood Bldg, Room 10A18, Bethesda, Md. 20205.

The following titles have been published by the International Union Against Cancer:

"Public Education About Cancer—Recent Research and Current Programs," edited by Patricia Hobbs. Twenty Swiss francs, ($10 U.S.).

"Guidelines for a Voluntary Cancer Organization," edited by M. A. Wood. Twenty-eight Swiss francs ($14 U.S.).

"UICC Multidisciplinary Project on Breast Cancer," edited by J. Hayward. Fourteen Swiss francs ($7 U.S.).

"Evaluation of Methods of Treatment and Diagnostic Procedures in Cancer," edited by R. Flamant and C. Fohanno. Twenty-four Swiss francs ($12 U.S.).

UICC publications may be ordered from Hans Huber Publishers, 76 Langgasstrasse, 3000 Bern 9, Switzerland.

The following are some future meetings you might want to consider attending.

BOYNE WINTER IMAGING SEMINAR—Feb. 20-25, Boyne Highlands Inn, Harbor Springs, Mich. Sponsored by William Beaumont Hospital, Department of Diagnostic Radiology. Intensive review of current developments in ultrasonography, computer tomography and nuclear magnetic resonance. Contact Mrs. Margaret Eager, Diagnostic Radiology, William Beaumont Hospital, Royal Oak, Mich. 48072.

AMERICAN SOCIETY OF PREVENTIVE ONCOLOGY—March 24-25, Bethesda Holiday Inn. Contact Dr. David Schottenfeld, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, N.Y. 10021.

DIAGNOSIS & TREATMENT OF NEOPLASTIC DISORDERS—April 7-8, Johns Hopkins Medical Institutions, Baltimore. Ninth annual symposium. Contact Diane Heydinger, Office of Continuing Education, 720 Rutland Avenue, Turner 22, Baltimore, Md. 21205, phone 301-955-6046.

ONCOLOGY NURSING SOCIETY—May 18-21, Town & Country Hotel San Diego. Eighth annual congress. Contact ONS, 701 Washington Road, Pittsburgh, Pa. 15228, phone 412-344-3899.

LEUKEMIA UPDATE-1983—May 19-21, Contemporary Hotel, Walt Disney World, Lake Buena Vista, Fla. Contact Leukemia Society of America, Central Florida Chapter, 3103 Maguire Blvd., Suite 252, Orlando, Fla. 32803.

INTERNATIONAL CONGRESS OF CHEMOTHERAPY—August 28-September 2, Kongresszentrum-Hofburg, Vienna. Registration deadline, Dec. 31. Deadline for submitting manuscripts, April 30. Contact Professor K. Karrer, Institute for Cancer Research, University of Vienna, Borschkegasse 8a, A-1090, Vienna, Austria.

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AUXILIARY REPORT

Karen (Mrs. Robert M.) Schleinkofer
President, ISMA Auxiliary

The State Legislature is now in session and, as responsible auxilians interested in the best government and health care for the people of our state, we hope you will become informed and involved and, in turn, involve your membership.

To comply with AMA Auxiliary policy and to ensure our status as an organization that works for the good of the people, our legislative activities focus on legislative rather than political action. This means our efforts will be to see that good health legislation is introduced and made into law, and that less desirable bills are either modified or not passed.

Looking to the future, we can anticipate a very active year, both at the state and national levels. One of the best ways to monitor good health legislation is to have a Key Contact Program. A key contact person is an auxilian who already knows or is willing to expend time and energy in getting to know a state or federal legislator. This key person will be kept up-to-date on current and proposed legislation that might affect the delivery of quality medical care in the state and on the federal level. The goal is to get a legislator to call on this key contact person to discuss aspects of medical bills. In the same way, the key person can keep the legislator informed regarding the effect of current proposed legislation on the quality of medical care. If the legislator already knows this resource person to be an intelligent, concerned, credible individual, he or she will give weighted consideration to what the key contact person says.

How can I get to know my legislator? Invite your legislator to be the speaker for a local community meeting, even an auxiliary meeting: or entertain your legislator and his or her spouse in your home or whatever way you entertain. They like to know their constituents on a social basis. Another way is to ask someone who is already a friend of the legislator to introduce you.

The common remark is: "I could never be a key contact person because I don't understand the legislative process nor do I feel confident that I could speak intelligently on a specific medical issue." Join the Club! You are not alone. As the spouse of a physician, your life is very fragmented and no one expects you to be an expert on any medical issue. The legislative staff at ISMA is ready to give you any information you need.

Volunteer to be your county legislation chairman or if that position is taken contact the ISMA office or have your county legislation chairman turn in your name. Forget shyness—be legislatively assertive! Your state and your auxiliary need you—now.

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FUTURE FILE

Indiana AAPS Meeting

The Indiana Chapter of the Association of American Physicians and Surgeons will hold its spring meeting Saturday, April 16, at the Heritage House Smorgasbord, U.S. 31 South, in Indianapolis.

A panel discussion is scheduled for 4 p.m. The subject, issues involving hospital medical staff/hospital administration interaction, will be addressed by Kent Masterson Brown, a constitutional lawyer from Lexington, Ky., and Donald C. Quinlan, M.D., an internist from Chicago. Both speakers are well known for their expertise in the subject under discussion.

The meeting is open to all Indiana physicians. All are invited to the AAPS Spring Dinner at the conclusion of the panel discussion.

2-Week Cytopathology Course

Cytopathology will be the subject of an intensive postgraduate refresher course at The Johns Hopkins University School of Medicine April 18 to 29, 1983. It is designed for pathologists who are certified or qualified by or for the American Board of Pathology (PA). Credit hours are 125 in AMA Category 1. A loan set of slides with texts will be sent to each participant for home study in March and April prior to the course. Apply before Feb. 2, 1983, to John K. Frost, M.D., The Johns Hopkins Hospital, Baltimore, Md. 21205.

Pediatric Mental Health

"Life, Faith, Hope and Magic—The Chaplaincy in a Children's Cancer Center" is the topic of the eighth annual Pediatric Mental Health Conference to be held in Houston at the Shamrock Hilton Hotel, April 21 and 22.

The conference will focus on the chaplaincy as an integral part of the medical care team and the role of religion as a support system to patients and their families.

Write or call Jeff Rasco, Office of Conference Services, M.D. Anderson Hospital and Tumor Institute, 6723 Bertner Ave., Houston, Tex. 77030, (713) 792-2222.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Hyperbaric Oxygen Conference

The Eighth Annual Conference on Clinical Applications of Hyperbaric Oxygen will meet June 8-10 at Memorial Hospital Medical Center, Center for Health Education, Long Beach, Calif.

For information, contact Michael B. Strauss, M.D., Memorial Hospital Medical Center, 2801 Atlantic Ave., Long Beach, Calif. 90801, (213) 595-3613.

Behavioral Neurology

Vanderbilt University School of Medicine will conduct its First Symposium on "Behavioral Neurology: Higher Cortical Functions and the Brain" on June 2 to 4, 1983. For full information write to Mrs. Joan Sullivan, Vanderbilt University School of Medicine, Nashville, Tenn. 37212.



I had to watch you through childbirth. Now you can watch my hemorrhoidectomy.

Disabled Physicians Co-op

A cooperative membership organization of physically disabled physicians is being formed by the St. Paul-Ramsey Hospital Medical Education and Research Foundation at 640 Jackson St., St. Paul, Minn. 55101.

The object is to register as many physically disabled physicians as possible and thereafter to match the membership, including new members, in a mutual exchange of information relating to ameolioration of the handicaps and improvement of disabilities to the end that an active medical practice may be pursued.

All correspondence is confidential. Later, a directory of the registrants will be printed and mailed to all physicians listed therein. All physicians who are practicing despite a physical handicap are invited to register.

Clinical Neurology

Vanderbilt University School of Medicine will conduct its sixth annual Symposium on Contemporary Clinical Neurology July 19 to 23 at the Hyatt Hotel, Hilton Head Island, S.C.

Write Mrs. Joan Sullivan, Department of Neurology, Vanderbilt University, Nashville, Tenn. 37212.

Pathology Meeting Slated

The United States-Canadian Division of the International Academy of Pathology will hold its Annual Meeting from Feb. 28 to March 4, 1983, at the Atlanta Hilton, Atlanta, Ga.

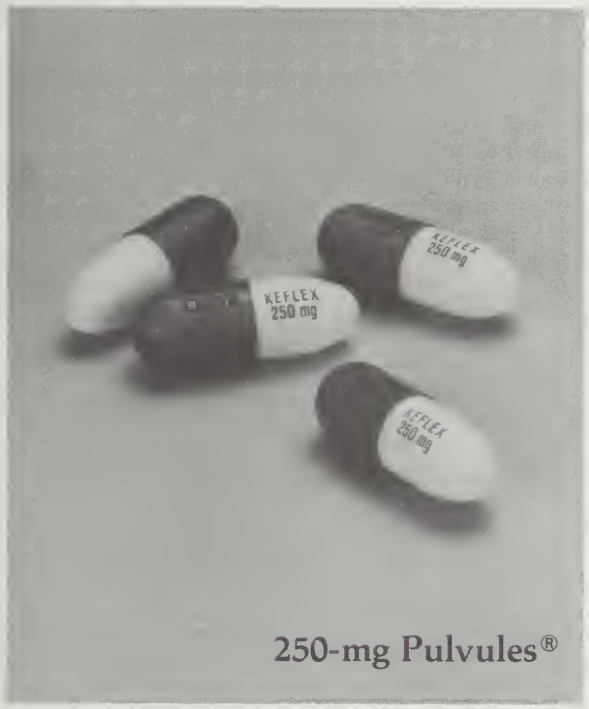
For details write Dr. Nathan Kaufman, 1003 Chafee Ave., Augusta, Ga. 30904, (404) 724-2973.

Breast Cancer

The American Cancer Society National Conference-Breast Cancer-1983 will be held May 19 to 21, at the Boston Sheraton Hotel, Boston. The meeting is rated at 16½ hours Category 1.

Write to Nicholas G. Bottiglieri, M.D., American Cancer Society, 777 Third Ave., New York, N.Y. 10017.

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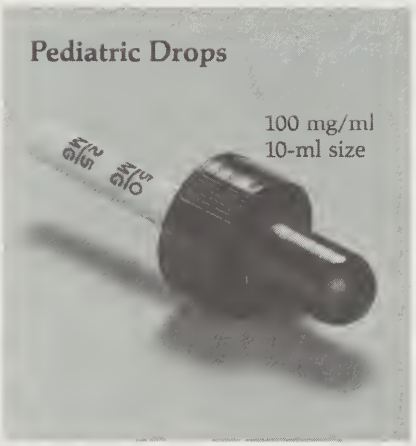
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BOOK REVIEWS

A Philosophical Basis of Medical Practice

By E. D. Pellegrino and David C. Thomasma. Copyright 1981, Oxford University Press, New York, N.Y. 341 pages, hardcover, $12.95.

The title of this small book may "turn off" some extremely busy physicians who feel that what little time they have for reading should be devoted to subjects directly applicable to patient care. For those familiar with the writings of Edmund Pellegrino, M.D., there need be no fears that the reader will fail to glean from this book some pearls that will directly affect his practice.

While he has numerous publications in the field of medical morals and ethics it must be remembered that Pellegrino is a professor of medicine and has made many solid contributions also in the field of clinical medicine. He has constantly pointed out that particularly physicians, but nurses and paramedical people also, often do not have a clear conception of their ultimate goals. This is restated in the present volume—"Medicine suffers from an abundance of means and a poverty of ends. Medicine really cannot be successful until it knows exactly what it is trying to achieve, whether this achievement is possible, and whether it reflects a desirable goal of contemporary culture."

Such questions as the following are dealt with. Are all members of the human race entitled to medical care regardless of their acceptability as members of society (criminals, those with retarded mentality, those who cannot pay for their care, etc.)? In other words, does each individual have an inherent right to medical care? How far should we go in prescribing tests and medicine for persons who insist on smoking cigarettes and using alcohol to excess and remaining excessively obese? How much discretionary space is there for clinical judgment exercised by physicians?

Unless there are some societal restraints (such as government), patients are entirely at the mercy of the physician. When these restraints become too rigid, as is already happening with increased intrusion of government into medical care, the patient may suffer from inability of the physician to carry out what he considers the optimum therapeutic program for his patient. Is it morally defensible to spend many thousands of dollars to preserve for some months the life of a patient in whom there is no hope of recovery, when the same dollar amount would provide preventive medicine or minimal curative care to hundreds of other patients?

These and many other philisophical questions are dealt with succinctly, but adequately, in this volume. From these discussions, "three axioms are developed . . . . Do no harm; respect vulnerability of patients; treat all patients as equal members of the human race."

The chapter on Medical Morality and Medical Economics: The Conflict of Canons, should be of special interest to every physician and every social planner, including legislators. In the opinion of the authors, "The physician is understood to have special skills which he promises to use in the interest of the patient when that patient presents himself for care. The prime focus of the physician's intentions, therefore, is the good of the patient who presents himself here and now—not some distant patient, not even the good of society, or the greatest good for the greatest number."

Pellegrino is wary of the concept of cost containment with its dollar limit on medical expenditures in certain areas, rigid limits on length of hospital stay, and other problems created by HSA regulations. On the other hand, he makes a strong plea for "cost consciousness" on the part of physicians. He decries the tendency of both house staff and graduate physicians to order a battery of tests just because they are available in a variety of clinical settings, as proof of thoroughness, or as defense against malpractice suits. He urges the cultivation of "diagnostic elegance," which includes careful history taking, meticulous physical examination, and critical attention as to what is really sufficient evidence for a diagnosis . . . "To practice cost sensitivity requires, first of all, that the physician be expert in the basic tools of his own craft."

Also, physicians are urged to take a more active role as citizens and expert citizens in decisions that determine health care policies and expenditures—always keeping in mind the "vulnerability" of the patient both as regards the care he receives and the fee he is expected to pay for it.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Correlative Neuroanatomy & Functional Neurology

18th Edition, by Joseph G. Chusid, M.D. Copyright 1982, Lange Medical Publications, Los Altos, Calif. 476 pages, softcover, $15.

This 18th edition is currently being published in eight languages, with two more in preparation. Its goal is to serve as a supplement to standard neurologic texts. With this goal in mind, the author has presented important features of the nervous system in relation to problems encountered in clinical neurology. The 35 chapter headings relate, for the most part, to such problems. Exemplary titles include "Trophic Changes," "Electromyography," "Infectious Diseases of the CNS," "Degenerative Diseases of the CNS," and "Selected Psychiatric Disorders."

Expanding on the textual material with more than 475 illustrations and 60 tables is particularly fortunate and adds immeasurably to the utility of the text. Two of many outstanding examples include Figure 1-51 and Figure 1-52, circulation of cerebrospinal fluid and an expanded Circle of Willis, respectively. A useful appendix, selected reference textbooks, and a well done index add further to the value of this book. It is sturdily bound in plastic, and the price of $15 is remarkably reasonable—especially for a volume that is revised at such frequent intervals.

The text is enthusiastically recommended for students, house staff members, and practitioners in general.

W. D. Snively, Jr., M.D.
Evansville
Internal Medicine

Office Management of Medical and Surgical Heart Disease

Edited by Lawrence I. Bonchek and Harold L. Brooks. Copyright 1981, Little Brown & Co., Boston. 346 pages, with illustrations, $22.50.

Four prospective randomized studies have now proven that coronary bypass surgery prolongs life in patients with triple vessel disease. The survival value of prosthetic valve replacement has already been accepted. Yet ultimately, the late vein graft patency and the complication-free interval after valve surgery primarily depends upon the patient's long-term office management. Meticulous attention to risk factor control, emphasis on prophylactic antibiotics and perfect anticoagulation, as well as the ability to recognize long-term complications are all part of the primary care physician's baliwick. These aspects of management are all but ignored in most textbooks.

Generalists seeking to participate intelligently in the long-term care of patients with medical-surgical heart disease will thus welcome this text. It is specifically designed to guide the office practitioner. A few lapses exist: e.g., the discussion on indications for cardiac pacers is too short while that on pacer implantation technique is too long for the intended audience. More specifics about when and why to operate on patients with adult congenital heart disease, and what to look for in young adults whose hearts were repaired early in life would be welcome in future editions.

When patients with valvular and ischemic heart disease should be referred for noninvasive and invasive cardiac procedures is especially well covered. As both cardiologists and cardiac surgeons have worked together on this book, an integrated medical-surgical philosophy is espoused. For emphasizing what the office practitioner must deal with before and long after cardiac surgery, these authors are to be congratulated.

Alan T. Marty, M.D.
Evansville
Cardio-Vascular Surgery

Venereological Medicine

By R. R. Willcox and J. R. Willcox. Copyright 1981, London Publisher Grant McIntyre, Medical and Scientific. 35 pages, paperback.

This "pocket consultant" covers the whole range of venereal and sexually transmitted diseases (such as hepatitis, infectious mononucleosis).

It is, as indicated by the title, a pocket-sized manual, written in cook-book style, well illustrated.

Because the authors are British, some of the drugs recommended will not be easily recognized by American physicians—for instance, sulphamidine and co-trimoxazole among the sulfonamides. However, enough American drugs are mentioned for this not to be a serious handicap. Diagnostic steps listed are complete and differential diagnosis quite adequate. However, for the make-up of culture media and technique of serologic testing the laboratory people will have to look to more specialized texts. For use in public clinics, especially, this should be an extremely useful book. Many physicians may want it for quick reference in their regular office practice.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Genitourinary Reconstruction with Prostheses

By L. V. Wagenknecht, W. L. Furlow, J. Auvert. Copyright 1981, Thieme-Stratton, New York. 216 pages, 264 illustrations, 57 tables.

The word for the material used for prostheses here is "alloplastic," i.e., the implantation of a foreign body as a substitute for damaged tissue structures. All surgical disciplines are involved in the increasing use of "alloplastics," most notably plastic and vascular surgery. This volume defines the new work in this field in ureteral, bladder and urethral replacement, and treatment of urinary incontinence and sexual impotency. A final section deals with the experimental creation of artificial spermatocoeles for harvesting active sperms.

It is a compendium of essays by authors from the Continent (especially Germany and France) and America. The Europeans have good sections on the theoretical replacement of the urinary system while the Americans have perfected (to a point) the actual implantation and use of silicone prostheses for sexual and incontinence disorders. It all hinges on the fact that silicone rubber is very inert in the body and yet can be molded satisfactorily. A vital connection with the body's connective tissue can be achieved by using a textile plastic cuff, as for instance with the replacement of the ureter, which allows for ingrowth and fixation of the junction with living tissue, (called in Europe a "Rhodergon" cuff).

It is an interesting compilation of the advances in genitourinary prosthetics and recommended to all urologists. The thought that comes forth after reading this volume is, "Where will it end?" Can we replace the entire body? Tune in next century for the final episode.

Rodney A. Mannion, M.D.
LaPorte
Urological Surgery

The University of Chicago Press soon will release *The Discovery of Insulin* by Michael Bliss. Banting and Best have been the heroes of this event for many years. Bliss points out that the Nobel Prize was awarded to Banting and J. J. R. Macleod. Banting divided his share with Best. Macleod divided his share with J. B. Collip. Bliss writes a thrilling account of the claims and counterclaims. He unearthed much new material including unpublished memoirs of Banting and Best and the confidential reports of the Nobel Committee. Medical history at its best. $20.

The American Hospital Association has published *Ethylene Oxide Use in Hospitals: A Manual for Health Care Personnel.* The book is useful in training personnel in safe and effective ethylene oxide gas sterilization and also serves as a guide and recommended practice for central service managers. 176 pages, $42 prepaid for institutional and personal members of AHA, $52.50 prepaid for others.

BOOK REVIEWS

Drug Use in Pregnancy

By Jennifer R. Niebyl, M.D. Copyright 1982, Lea & Febiger, Philadelphia. 193 pages, hardcover, $18.50.

Dr. Niebyl, associate professor of Obstetrics and Gynecology at Johns Hopkins School of Medicine, with the aid of 20 collaborators, mostly from Hopkins, has put together a volume that should be useful for all clinicians, and be almost a *must* for those dealing with pregnant women.

In a remarkably concise form, with every chapter fully annotated, she presents the published evidence about every drug discussed and makes clear the recommendations of the various authors both for and against the various pharmacologic agents.

Understandably, teratogenesis receives major emphasis in every drug class discussed. The authors point out that if animal experiments could be reliably translated to human experience nearly every drug in common use would be under suspicion for causing fetal abnormalities. However, the data gleaned from the extensive Perinatal Collaborative Project covering more than 50,000 pregnancies indicate that many commonly used drugs do have potential teratogenic effects if used carelessly in the first trimester.

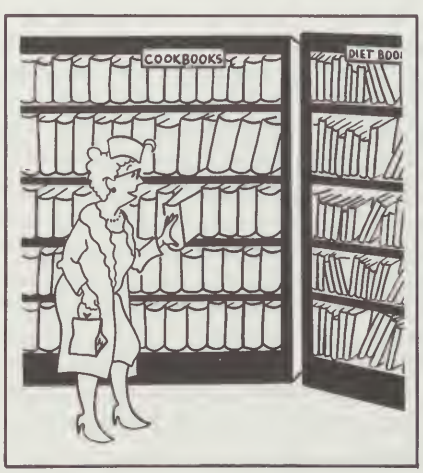
Among the various drugs used for nausea and vomiting of pregnancy Bendectine (doxylamine plus pyridine HCl) and Tigan are considered the safest. A warning is given against aspirin in large doses, especially at the time of delivery because of possible hematomas in the newborn. Darvon poses some risk of teratogenesis. Among the milder analgesics, the authors prefer acetaminophen. Penicillin is recommended as the safest antibiotic because of its rapid elimination through the kidneys. The usual side effects among the other antibacterial agents are outlined. The authors stress the careful monitoring of aminoglycosides, should they be urgently needed, because of possible renal damage to mother and fetus, and feel that chloramphenicol should never be used. Metronidazole has caused pulmonary adenomatosis and mammary and liver carcinomas in rats, but there has been no proof of added risk in pregnant women.

In controlling asthma, the authors remind us that Theophylline crosses the placenta and may have mutagenic effects. Also, excessive doses often cause vomiting, feeding problems and cardiac arrythmias. They point out that Prednisone and Prednisolone are significantly deactivated in crossing the placental barrier and are relatively safe. Both Cromolyn and iodides are not felt to have benefits that outweigh their adverse side effects. Terbutaline is recommended as the safest bronchial dilator.

The necessity for great care in the use of anticoagulants is obvious. The authors do not rule out the use of oral Warfarin compounds, but warn that they may be teratogenic, and careful monitoring to arrive at the correct dose is usually difficult. They feel comfortable with Heparin in moderate doses. For prophylaxis in women at risk from previous thrombophlebitis, they have found 5,000 units parenterally every 12 hours usually effective and safe.

The discussion of antineoplastic drugs is very useful. Teratogenicity is, of course, the most important hazard, yet many normal infants have been born of mothers who have received them in full doses. The greatest ill effects are, of course, in the first trimester.

The discussion of drugs to prevent premature labor is too detailed to be discussed usefully in this review. The authors feel that among the B_2 blockers ritodrine HCl (Yutapar) is probably the best and safest.



In the final chapters, the authors make a strong case against both nicotine and alcohol used chronically even in moderate doses throughout pregnancy. Incontrovertable pharmacologic evidence is presented to explain the much greater risk of spontaneous abortion, and premature delivery. Babies born of chronic smokers and/or alcohol users have lower birth weights, lower hemoglobin values, more growth and mental retardation, and more birth defects such as cleft palate and skeletal and joint abnormalities than those born of mothers who do not handicap their babies in these ways.

Even a short perusal of this excellent text should convince every physician who treats pregnant women that these patients have special problems. Prescribing drugs for them requires more than a casual knowledge of the pharmacologic agent to be used.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

New Century Publishers announce *The Y's Way to a Healthy Back* by Alexander Melleby. The book outlines exercise programs designed to strengthen the musculature of the back and thereby relieve painful conditions. Most back problems are the result of weak muscles and poor physical condition. The recommended program may be followed at home with the assistance of a friend or may be carried out in small groups as in a YMCA. 192 pages, $8.95 paper or $13.95 cloth.

The National Technical Information Service (NTIS) has released a new report on biotechnology patents related to enzymes and microorganisms. More than 3,000 domestic and foreign held U.S. patents cover mutation/genetic engineering, enzymes, tissue culture, starch hydrolysates, amino acids and immobilized enzymes—all profiled in *Patent Profiles: Biotechnology.* The book describes patent activity during the past 10 years, the firms, inventors, and a copy of the first page of over 300 patents. $15.50.

CME QUIZ

Improving Patients' Compliance

CONTINUED FROM PAGES 26-29

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Which of the following factors is *most* consistently associated with therapeutic compliance?
   a. The patient's personality
   b. The type of medication prescribed
   c. The complexity of the regimen
   d. The patient's level of education
2. Which of the following has been found regarding physicians' predictions of compliance?
   a. They overestimate both their own patients and those of their colleagues.
   b. They underestimate both their own patients and those of their colleagues.
   c. They overestimate their own patients but underestimate those of their colleagues.
   d. They underestimate their own patients but overestimate those of their colleagues.
3. Which of the following measures of compliance is most practical and valid?
   a. Patient self-report
   b. Pill counts
   d. Physician estimates
   e. Health outcomes
4. Which of the following describes the relationship between what a patient knows and what he/she does?
   a. Almost 90% of the patients who can describe their regimens accurately, also follow them correctly.
   b. Patients remember most of the physician's instructions when interviewed immediately after the clinic visit but forget almost half of the recommendations within a week.
   c. Patients who can describe their diseases accurately are almost twice as adherent as those who cannot do so.
   d. None of the above.
5. Which of the following would be most likely to result in a patient's following the desired outpatient regimen?
   a. The physician orally describes the specifics of the regimen.
   b. The physician writes down the specifics of the regimen.
   c. The patient orally restates the specifics of the regimen.
   d. The patient in writing restates the specifics of the regimen.
6. Which of the following is *least* likely to predict compliance with an antihypertensive regimen?
   a. The patient's belief that he/she is susceptible to a cardiovascular event.
   b. The patient's socioeconomic status.
   c. The patient's belief that the medication taken as prescribed will control hypertension.
   d. The patient's support from his/her family to take the prescribed medication.
7. Which of the following questions asked of a patient by a physician would be most likely to solicit accurate information about the patient's adherence to a weight-loss diet?
   a. If you were staying on your diet, why aren't you losing weight?
   b. Are you following your diet?
   c. Many patients have problems staying on their diet. About how many days of the week do you have problems following your diet as prescribed?
   d. Most doctors agree that losing weight is very important for your health. Don't you agree?
8. In a study conducted in a general medicine clinic of an urban hospital, the experimental group physicians increased the amount of time they spent on patient education and decreased the time spent on history and physical examinations of their hypertensive patients. The physicians in the control group did not change how they spent their time with patients. Six months later, how do you think the patients of the experimental group physicians compared with the patients of the control group physicians?
   a. Experimental group patients had an increase in knowledge about hypertension and its control, but had no improvement in blood pressure control.

CONTINUED ON PAGE 58

December CME Quiz Answers

Following are the answers to the CME quiz that appeared in the December 1982 issue of THE JOURNAL: "Attention Deficit Disorder," by Takuya Sato, M.D.

1. d	6. c
2. b	7. a
3. c	8. d
4. b	9. a
5. d	10. b

Answer sheet for Quiz: (Improving Patients' Compliance . . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for this month's quiz, send your completed, signed application before Feb. 10, 1983 to the address appearing at the top of this page.

CHINA: A Blend of the Ancient and the Modern

Report of an Indiana Delegation's People-to-People Tour



CHILDREN of the "July First" commune near Shanghai act out a musical play. The commune houses almost 19,000 people who make their living on its 3,800 acres.

BETWEEN ONE-FOURTH and one-third of the world's population is Chinese. Most of them live in China, a land almost exactly the size of the United States but with one-seventh the amount of tillable soil per person.

A tour of China is magnificently impressive, great cities, The Great Wall, The Forbidden City, the 3200-mile Grand Canal, architectural marvels of thousands of years—all most impressive but still much less so when compared with its people.

Well over one billion souls, busy, industrious, hard working, honest, healthy, and unbelievably friendly.

Genuine friendship was implicit in every contact with Chinese people of all stations and in all situations. Manifest and subtle indications of sincere interest and good will were so commonplace as to leave the impression that our friendship mission had been heralded and planned to the last detail.

The trip was an Indiana medically oriented People-To-People Tour to the People's Republic of China. It was organized and led by the State Health Commissioner, Dr. Ronald G. Blankenbaker, and included representatives of medical specialties, dentistry, hospital administration, medical journalism, public health and radiological technology.

People-To-People Tours, as originally suggested by President Eisenhower, are privately conducted tours dedicated to the purpose of making and nurturing friendships with people of other nations. The general impression of the Indiana delegation was that we discovered friendships in China, universal and wholehearted. Friendships were not so much created as they were validated and strengthened.

Friendly and hospitable are not the only qualities of the Chinese race. They are also honest, industrious, and hard-working.

So honest that when one of the group left a small portion of his change on the counter of the Friendship Store he was followed into the street by the young lady clerk who returned to him a small Chinese coin worth less than an American cent.

So busy there is practically no unemployment. At any spot in all large cities a glance around the horizon will show three or four high rise buildings under construction. The countryside is as busy as a beehive. Most of the agricultural work is done by hand with the aid of an occasional water buffalo and, very rarely, power machinery.

An aggregation of reports by members of the Indiana delegation: Ronald G. Blankenbaker, M.D., Glenn W. Irwin, Jr., M.D., Ferrer Levinson, D.D.S., George F. Rapp, M.D., Craig Spence, M.D., Hal S. Stocks, B.S., Paul S. Strange, M.D., and Frank B. Ramsey, M.D.

Photographs, including the cover illustration, courtesy of George F. Rapp, M.D., Indianapolis, and the China Photo Service.

So healthy and self-sufficient 500 to 600 hospital beds care for one million citizens. In the United States some 3,500 beds are required for the same number. Fully trained dentists are in the ratio of one to 60,000 Chinese. The American ratio is one to 2,200. In both instances the slack is taken up by "barefoot doctors" and "barefoot dentists", persons with limited training who act as first aiders and care for minor illnesses and small injuries.

Chinese medicine, especially the portion of it which conforms to Western medicine, is now struggling with the tremendous task of recovering from the demolition of medicine and all cultural education during the Cultural Revolution. Universities and medical colleges were closed by the Revolution. Medical schools were re-opened in 1978 and are now graduating their first classes in many years. Teaching residencies are starting from scratch. Dental training has been re-established. It requires five years, two years in medicine and three years of technical work later.

Admission to professional schools, including medical school, is based on competitive examinations. Those who pass the examination are assigned to medical school, to law school, or to other professional training schools without regard to the applicants' desires. Selection for training after graduation follows the same process. Each graduate is assigned to a hospital which, in turn, determines what, if any, specialty training each doctor enters. The time the doctor enters medical practice and the location of the practice is also selected by a governmental agency. The rigidity of this system gains at least partial justification when it is viewed as a means of repairing the shattered medical service in China and as an answer to the problem of spreading what reliable medical practice there is over a large area packed tightly with over one billion people.

Hospitals were visited in each large city. In one a workers' hospital and a teaching hospital with an active orthopedic service. Later a provincial hospital and still later a research and teaching establishment. Each commune has its own medical service—a 50-bed hospital manned by "barefoot doctors" was seen at a large commune.



AERIAL VIEW of the Palace Museum in Beijing, formerly known as the Forbidden City. Built in the 15th century, it served as the imperial palace of the Ming and Qing Dynasties.

With the exception of a research laboratory with an electron microscope and one hospital with a beautiful hyperbaric oxygen treatment unit, all hospitals were sparsely and meagerly equipped. Intravenous bottles were all of the style with open tops, operating rooms were clean but were furnished with the bare necessities, all, apparently, of 1920 vintage. It is a marvel that the professions have been able to rebuild as much as they have. It is obvious that, after having been reduced almost to extinction, the professions have made an astounding recovery in spite of a serious shortage of money.

Hospital staff physicians were in sharp contrast to their environment and the medical equipment and lack of it. All physicians visited were most cordial and hospitable. Those who spoke English demonstrated their knowledge of modern Western medicine and its advancements, and their intense desire for further progress.

China is a bizarre combination of the ancient and the modern. Pagodas and shrines of unknown antiquity stand near 35-story modern buildings being built within bamboo scaffolding. The reverence of ancestors and the worship of great public figures is exemplified by the majestic tomb of Chairman Mau within which his body is preserved by deep freezing and is elevated daily from his tomb to lie in state day after day while a constant procession of spectators march silently by.

Medical practice in China is a combination of ancient practices and modern Western medicine, both of which are utilized according to the patient's choice. There was an acupuncture clinic in each of the hospitals visited. Many stores feature old herbal preparations, ginseng and such oddities as powdered rhinoceros horn.

In one hospital the senior physician hostess was a woman physician with training at Massachusetts General Hospital and with 27 years of clinical experience in China. She related her clinical experience of an anti-arrhythmia drug over a two-year period—the same drug that became obtainable in

the United States for the first time the week the delegation flew to China.

The rural communes conduct primary medical care in the commune hospitals with a staff which consists, for the most part, of "barefoot doctors." Provincial hospitals receive those who are seriously sick or badly injured.

In the "July First Commune" near Shanghai the hospital was set up for 50 beds, most of which on the day of the visit were empty. Between 18,000 and 19,000 persons reside and make their living in this commune on 3,800 acres. Numerous inquiries were directed to various individuals at the "July First" concerning the communal land area. No matter whether figured in hectares or acres, the size always was quoted as approximately 3,800 acres, close to 0.2 acres per person. Dietary sufficiency apparently is achieved by intensive farming—several crops yearly on the same soil, and by use of plastic protection during the colder months. This commune hospitably provided what was probably the best meal of the entire trip.



LUNCH PREPARATION in a worker's home at the "July First" commune. The chicken "sweeps" the floor.

Most communes are large. Many of them have their own factories, generate their own electrical power and manufacture articles which are sold to provide financial income. It is customary for communes to make a profit. This is calculated each year and the central government receives a small percentage of the income, after which the profit may be divided equally among the family groups.

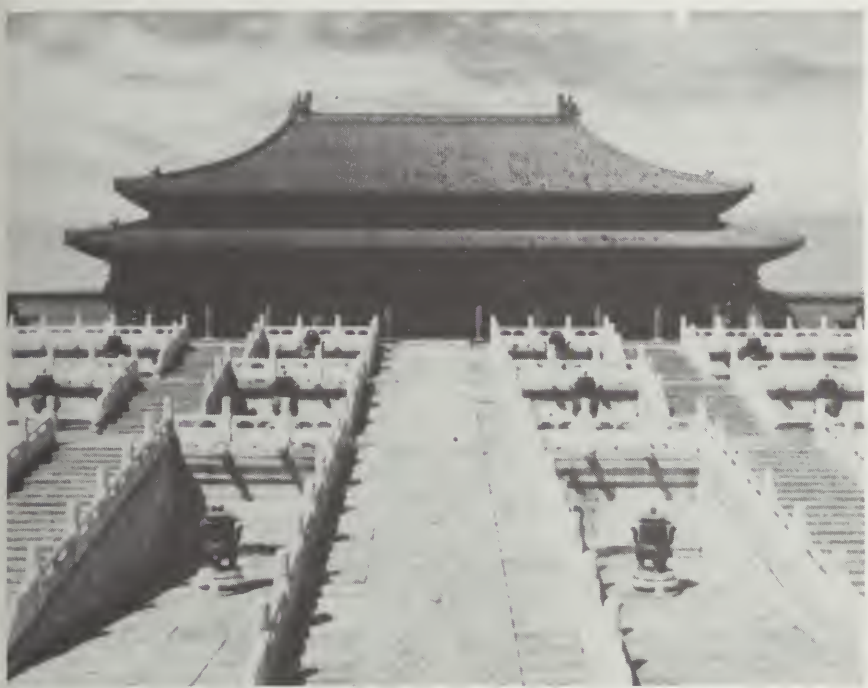


PANDA CUB was born in the Beijing Zoo.

Each family in a commune is allowed 50 square meters of land upon which to raise their own food. If the family chooses, this food may be sold in nearby towns at what is called a Free Market. The price of almost everything in China is set by the central government. However, the farmer may set the price and sell his produce in a Free Market and pocket the money. There are numerous incentives for good hard work in the highly controlled Chinese economic system.

There are also several obvious justifications for the high degree of governmental control. The situation is such that, except for control, the country would be in pandemonium.

China is full of people. Even a slight increase in population would create a famine. The birth rate is maintained at a stable population level. The first child is encouraged and welcomed by a small



THE HALL of Supren.e Harmony, a part of the Palace Museum at Beijing, is where emperors held their coronations and issued decrees.

government subsidy. The second child is tolerated but not celebrated. After that, the condition becomes serious.

Private ownership of automobiles is forbidden. One of the big industries is the manufacture of bicycles. Rush hour is one solid mass of bikes. All wide streets have the curb lane on each side reserved for two-wheeled traffic. Everyone is well exercised.

Motorized transportation such as taxicabs, sight-seeing buses, mass transportation buses and fine railroads are in proper supply. China will, evidently, become more industrialized as the country develops and acquires Western ways. It must shift its workers from agriculture to industry gradually, however, under the threat of food shortage.

The prohibition of private automobiles naturally relieves the Chinese economy of a considerable movement of resources and labor from vital agricultural work to factories. It also eases the well known burden of supplying large amounts of fuel to personal transportation which is so well managed by pedal power.

All these seemingly harsh policies are usually associated with communistic methods but, when examined against realities, they take on the air of reasonable and considerate rules for the preservation of a society which lacks the reserves in resources and agricultural land which might permit more freedom. China is surviving by dint of hard work and well directed enterprise.

The personal incentives woven into the rural communes, the tendency to the assumption of secondary jobs for gain, the loyalty to family and to employers, the worship of the work ethic, the scorn for the lazy and the bright aura of happiness and satisfaction with their lot characterizes the Chinese people and makes their government, if it is communistic, a new kind of communism. It may be that they have adopted controls for things which they must control but, at the same time, have avoided the elements of communism which they do not need.



A BRONZE TORTOISE guards the front of the Hall of Supreme Harmony. The tortoise is an ornament in the Chinese ancient design.

NEWS NOTES

Dr. Beering Chairs AAMC



Dr. Steven C. Beering, dean of Indiana University School of Medicine, is the new chairman of the Association of American Medical Colleges (AAMC). In this new and very important position he has emphasized the necessity for all medical schools and the public to realize the importance of medical scientific research and the creation and support of biomedical scientists.

He feels that the environment for scholarly and creative work is deteriorating and that laboratories and equipment are aging rapidly.

Dr. Beering has been chairman of the Council of Deans and a member of the Executive Council of the AAMC, and in 1977-79 was chairman of the Section on Medical Schools of the American Medical Association.

Nutrition Guides Offered

The American Dietetic Association announces two new nutrition guides. "Food 2" is a 48-page publication, available for $5, which reviews facts about weight loss and supplies ideas for effective weight control. "Food 3", a 16-pager, sells for $3.50 and focuses on guidelines for reducing the levels of total fat, saturated fat and cholesterol in meals and snacks.

Write to the ADA at 430 N. Michigan Ave., Chicago 60611, or phone (312) 280-5000.

Emergency Management Film

Abbott Laboratories announces a new CME program on "Emergency Management of the Multiply Injured Patient," produced in cooperation with the American College of Emergency Physicians. Booking reservations for the motion picture may be made by writing Abbott Audio-Visual Services, 708 N. Dearborn St., Chicago 60610. The rental charge is $15 for five-day use. This includes 10 copies of a monograph that supplements the 29-minute film.

Diabetes and Eye Disease

The National Society to Prevent Blindness warns that all diabetics are at risk for diabetic retinopathy which blinds some 4,700 patients each year.

The Society and Wilmer Ophthalmological Institute have developed a booklet, "The Effects of Diabetes on the Eye," which describes and depicts stages of retinopathy, how it is treated or monitored, and includes advice for the diabetic about self-help steps to be taken.

This 47-page booklet is available at $4 and a slide/cassette version of the same information contained in 57 color slides may be had for $60. To order the booklet or the slide/cassette set, include a check or money order and send to the Society at 79 Madison Ave., New York, N.Y. 10016.

CME Quiz . . .

CONTINUED FROM PAGE 53

b. Experimental group patients had an increase in knowledge about hypertension and its control, and had a significant improvement in blood pressure control.
c. Experimental group patients had neither an increase in knowledge about hypertension and its control, nor any improvement in blood pressure control.
d. Experimental group patients had an increase in knowledge about hypertension and its control, but had a significant increase in diastolic blood pressure.

9. Which of the following would most likely result in enhancing therapeutic compliance?
   a. The patient and the physician agree in writing on goals and the patient receives follow-up phone calls to monitor progress.
   b. The physician writes out the goals and the patient receives follow-up phone calls to monitor progress.
   c. The patient and the physician orally agree to goals for the next visit.
   d. The physician describes the goals for the patient's next visit.
10. Which group of patients is most likely to be amenable to compliance-enhancing strategies?
   a. The elderly
   b. Those with the most education
   c. Those with the most income
   d. Those who admit to some noncompliance

Diet-Cancer Study Results

A Committee of the National Academy of Sciences reports on a study—"Diet, Nutrition and Cancer"—to the effect that, while evidence suggests that cancers of most major sites are influenced by dietary patterns, the data are not sufficient to specifically determine the contribution of diet to overall cancer risk.

The committee further states that it may never be possible to specify a diet that would protect everyone against all forms of cancer. Nevertheless, it was stated that, on the basis of current evidence, it is possible to formulate guidelines that are consistent with good nutritional practices and are likely to reduce the risk. These guidelines include:

- Reduce consumption of foods that are high in saturated and unsaturated fats.
- Include fruits, vegetables and whole grain cereal products in the daily diet.
- Minimize consumption of food preserved by salt-curing, salt-pickling or smoking.
- Moderate the intake of alcohol.

PMI Pads Now Available

The AMA has announced that Patient Medication Instruction pads are now available for 20 of the most widely prescribed drugs or drug classes. They are bound in pads of 100 sheets; the minimum order is 10 pads for $5, prepaid to AMA, P.O. Box 52, Rolling Meadows, Ill. 60008.

Dr. James H. Sammons, AMA executive vice-president, expects the use of PMIs to improve the effectiveness of drug therapy, strengthen the physician-patient relationship, reduce the risk of improper drug use, decrease the incidence of preventable and serious adverse drug reactions, and increase patient compliance.

The PMIs are 5½×8½-inch sheets printed on both sides with simple instructions on the purpose of the drug, how it is to be taken, and its possible side effects. Space is provided to write the dosage and any special instructions the physician may have for the patient.

Drugs for Rare Diseases

The PMA Commission on Drugs for Rare Diseases invites submission of inquiries or formal proposals on investigational drugs or compounds and devices that may be useful in the prevention, diagnosis or treatment of rare diseases.

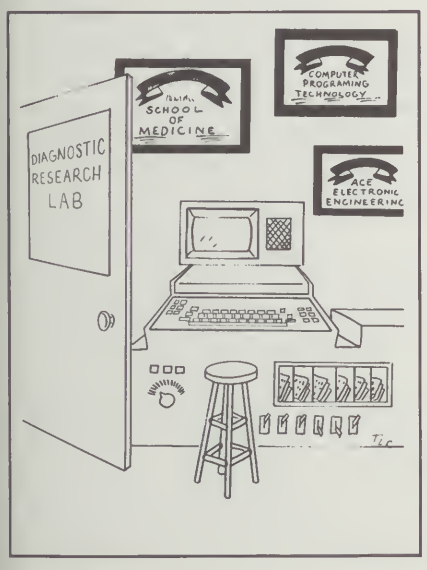
A brochure that describes the Commission, its scope, and procedures for submission and review of inquiries and proposals may be obtained on request to the Commission at 1100 Fifteenth St., N.W., Washington, D.C. 20005.

Chemical Waste Disposal

Highly toxic wastes may be destroyed by high-temperature incineration. A German ship, made especially for this purpose, has been launched in Emden, West Germany, and after a sea trial will arrive in the U.S. in a few months.

The VULCANUS II is an improved model of the VULCANUS I, which has been in service in European waters for 10 years. VULCANUS II contains three incinerators that operate at temperatures between 1250 and 1500 degrees Centigrade. It is fitted with monitoring devices for complete control. It will detoxify chlorinated hydrocarbons so completely the residue may be safely discharged into the ocean.

The new ship has a capacity for destroying up to 20 million gallons of waste annually.



Roche Offers 'How To' Series

Roche Laboratories announces the second phase of the Roche Medication Education program. The first activity was the distribution of the "What If Book" in 1978. This publication was directed to the public and discussed common medication mistakes such as swapping medication, drinking alcoholic beverages while taking medication and the like. Nearly 24 million copies of the booklet have been passed on to patients by various health care professionals.

Now, a new patient information booklet entitled "The How To Books" will provide information on five classes of medication: antibacterials, antiarthritics, diuretics, minor tranquilizers and sedative/hypnotics. Distribution will be through physicians, pharmacists and other health care professionals.

$100,000 Cancer Awards

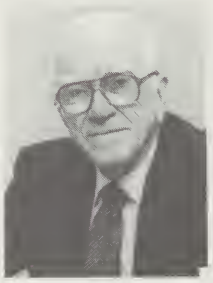
The Armand Hammer Foundation will award a prize of $100,000 each year for 10 years to encourage cancer research. The first award will go to "the person or persons deemed to have made the most significant contribution during 1982 toward a breakthrough in the treatment and cure of cancer." The Foundation has another $1 million which will be awarded to the person or persons who achieve a cure for cancer similar to that discovered by Dr. Salk with the polio vaccine.

Bowen Memorial Library

Plans have been completed for the Bowen Memorial Library at Bethel College in Mishawaka and a fund-raising campaign is under way. The college's trustees have invested $1 million in the $3 million fund which will erect the two-wing library and also provide financial support for operations for the near future.

One wing of the library will house the collection of Dr. Otis Bowen, while the other wing will accommodate the college's main library, which is outgrowing its present quarters in the Administration Building. The new structure will also contain many study rooms—soundproof for discussion groups or for language studies, and study space for more carrels, and a larger processing and work area. Bethel College hopes to begin construction this spring.

Dr. Yoho Thanks ISMA



Robert O. Yoho, H.S.D., deputy commissioner for administration, Indiana State Board of Health, until he retired recently, has expressed his personal appreciation to the ISMA for having made him an honorary member of the Association.

Dr. Yoho, who retired after 41 years with the Board of Health, was the subject of ISMA Resolution 82-15, introduced by the Board of Trustees and adopted by the House of Delegates in October. The resolution cited Dr. Yoho for "rendering meritorious service to the people of Indiana and to the medical profession."

In a letter to Dr. John A. Knote, ISMA president, he said:

"Last week I had lunch . . . with Don Foy (executive director) and Ken Bush (assistant executive director), both of whom are very good friends of mine.

"It is always good to meet with friends, whatever the occasion may be. This turned out to be the greatest of pleasures and I am indebted to you and the ISMA for making it so.

"I was surprised and greatly honored by the action of the Association . . . I was so overwhelmed when Don and Ken presented the citation that I am afraid I did not adequately express my gratitude for this recognition, which I consider the most significant that I have ever received.

"I am aware of the care and discretion the ISMA takes in making this type of decision. I am also aware of the infrequency of such action. This is what makes it an honor that will always be cherished . . . ."

NEWS NOTES

Here and There . . .

. . . Recently elected to fellowship in the American Academy of Family Physicians were **Dr. Terry L. Frederick** of Carmel, **Dr. James T. Walsh** of Terre Haute, **Dr. Rex A. Wieland** of N. Manchester, and **Dr. Bruce K. Winner** of Winchester.

. . . **Dr. Joel W. Salon** has been named director of residency training at St. Joseph's Hospital, Fort Wayne.

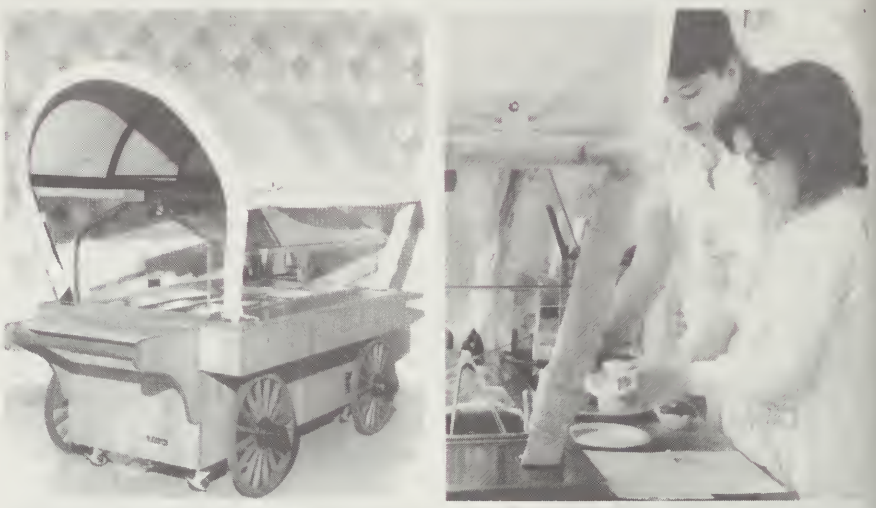
. . . **Dr. Paul L. Ramsey,** an Anderson orthopedic surgeon, discussed back pain during an October public health forum at St. John's Medical Center, Anderson.

. . . **Dr. Kevin J. Murphy** of Lafayette addressed the October meeting of the Carroll County Heart Association.

. . . **Dr. Frank D. Pairitz** of South Bend spoke about radiation oncology during the November meeting of the Michiana Medical Records Association.

. . . **Dr. Ada P. Harper** of Indianapolis discussed methods of detecting breast cancer during a November meeting of the Guion Road YWCA.

. . . **Dr. Robyn K. Goshorn** of Franklin discussed diabetes during the November meeting of the Franklin Lions Club.



"CHUCKY'S WAGON," a refrigerated serving cart, has proven popular as the centerpiece of a new dining room for youngsters in the children's ward at St. Catherine's Hospital in East Chicago. The miniature covered wagon, used to hold both hot and chilled foods, was the idea of dietitian Mary Daw. Her new dining arrangements allow youngsters to select their own meals and to socialize. The wagon was adapted from a refrigerated flower merchandiser made for supermarkets by Stanley Knight Corp.

. . . **Dr. John G. Mathis** of South Bend discussed gastrointestinal disorders during the November meeting of the Ostomy Chapter of St. Joseph County.

. . . **Dr. Alan D. Schmetzer,** an Indianapolis psychiatrist, discussed schizophrenia during a November meeting of the Johnson County TLC (Together we Learn to Cope).

. . . **Dr. Fletcher W. McDowell** of Muncie addressed the November meeting of the Muncie Area Ostomy Association.

. . . **Dr. Michael B. DuBois** of Indianapolis has been named chairman of ISMA's newly formed Ad Hoc Committee to Reduce Drunk Driving.

. . . **Dr. Thomas L. McConnell,** medical director of Fairbanks Hospital, Indianapolis, discussed the physician's role in chemical dependency intervention during the Palm Beach Institute's Annual Conference on Chemical Dependency in October.

. . . **Dr. June Machover Reinisch** of Bloomington has been appointed by the trustees of Indiana University as director of The Kinsey Institute for Research in Sex, Gender and Reproduction.

. . . **Dr. Ned B. Hornback** and **Dr. Heun Yung Yune** of Indianapolis have been named fellows of the American College of Radiology.

. . . **Dr. Donald E. Wood** of Indianapolis served as medical chairman of

Indiana's Dietitian-Diabetes Referral Network

There is now a way for your patients with diabetes to have continuity of nutritional care with the help of a Registered Dietitian, but without the necessity of being admitted to the hospital.

The Indiana Dietetic Association and the Diabetes Research and Training Center have identified dietitians with a special interest and expertise in diabetic nutritional education. A list of such dietitians is available for referral by physicians from the phone numbers listed below. The existence of this referral network should help the physicians in:

- Outpatient diet motivation and advice that could encourage the person to reach weight goals and maintain acceptable levels of blood glucose control.
- Diet modifications that may be needed because of lifestyle or activity changes, or because of concurrent medical situations (pregnancy, hypertension, etc.).

For names of Registered Dietitians in your county area who accept referrals, or for further information, contact Beth Gatto (IDA, (317) 924-8919), Madelyn Wheeler (DRTC, (317) 630-6215), or one of the five American Diabetes Association regional offices in Indiana:

Central: Indianapolis (317) 356-7208
No. Central: Anderson (317) 378-0555
North East: Ft. Wayne (219) 482-9426
North West: Hobart (219) 769-3650
South West: Terre Haute (812) 232-0361

the recently concluded annual fund campaign for the Indianapolis Museum of Art.

. . . **Dr. Robert O. Wuthrich** of Fort Wayne has been named a diplomate of the American Board of Family Practice.

. . . **Dr. Jerry L. Stevenson** of Anderson has been appointed professional pre-med advisor at Anderson College.

. . . **Dr. Joseph C. Kerlin** of Danville was among 10 physicians selected by *Good Housekeeping* as finalists for the annual Family Doctor of the Year Award; he was nominated by the Indiana Academy of Family Physicians.

. . . **Dr. Atee S. Salvo** of Williamsport has been appointed Fountain-Warren County health officer.

. . . **Dr. Bert I. Davis** of Anderson discussed arthritis during a public health forum at St. John's Medical Center in November.

. . . **Dr. Claude C. Reeck** of Noblesville has been appointed to the State Examining Committee for Physical Therapists and Assistants.

. . . **Dr. Carter F. Henrich** of Bloomington addressed a recent meeting of the Bloomington Cardiac Support Group.

. . . **Dr. Donald W. Reed** of Greenfield addressed the annual dinner meeting of the Epilepsy Foundation of Madison County, held in November.

. . . **Dr. George W. Hicks** of Indianapolis has been elected to membership in the American Neurotology Society.

. . . **Dr. James E. Stephens** of Brazil has been certified by the American Board of Family Practice.

. . . **Dr. William D. Haehl** has been appointed medical director of the Shelbyville-Shelby County Emergency Unit.

. . . **Dr. Steven C. Beering,** dean of Indiana University School of Medicine, will be the Convocation Medalist for the 32nd annual scientific session of the American College of Cardiology in New Orleans March 23.

. . . **Dr. Roscoe E. Miller,** distinguished professor and chief of gastrointestinal radiology at Indiana University School of Medicine, is co-author (with J. L. Sellink, M.D., The Hague) of a text entitled *Radiology of the Small Bowel: Modern Enterclysis Technique and Atlas* (Martinus Nijhoff, Publishers).

. . . **Dr. Mary L. Burgeson** of Evansville has been named a diplomate of the American Board of Family Practice.

Fire Prevention

The "Fire Brigade Training Manual" is now available from the National Fire Protection Association. It concerns the incipient fire brigade which may consist of a group of employees trained in controlling or extinguishing incipient (initial) stage fires using a Class II standpipe system (1-1.2″ hose system) or a portable fire extinguisher without the need for protective clothing or equipment. The manual contains 230 pages and sells for $14.95. Write the NFPA at Batterymarch Park, Quincy, Mass. 02269.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Acher, Robert P., Greensburg
Alley, Thomas W., Indianapolis
Aluning, Pastor D., Rochester
Aust, Charles H., Fort Wayne
Backs, Alton J., South Bend
Baker, Paul D., Indianapolis
Balamohan, Ramalingam, Bluffton
Behrend, Frank L., Valparaiso
Bennett, Abner P., Evansville
Blusys, Paulius V., Fort Wayne
Botkin, Clyde G., Muncie
Bridge, Thomas A., Lafayette
Buehner, Donald C., Bloomington
Calla, Delicia B., Indianapolis
Clark, Eric D., Plainfield
Clements, Robert E., Greenfield
Deppe, Charles F., Franklin
Dizon, Belen R., Munster
Doles, Ted S., Muncie
Ferree, Harry L., Indianapolis
Garfield, Martin D., Indianapolis
Graber, Martin J., Indianapolis
Guckien, Joseph L., Evansville
Haggard, David B., Plainfield
Hamilton, Thomas G., Columbia City
Hermann, Harold W., Evansville
Herring, Malcomb B., Indianapolis
Johnston, Richard M., Fort Wayne
Kamen, Jack M., Gary
Keener, Gerald T., Indianapolis
Kinasiewicz, Leon E., Crown Point
Knight, Everett R., Jeffersonville
Koss, Kenneth W., Muncie
Krueger, John E., Fort Wayne
Longstaff, John P., Evansville
Lukins, James D., Jeffersonville
Markstone, David H., Indianapolis
McFadden, Wilbur D., N. Manchester
Moeller, Douglas J., Indianapolis
Mohlman, Robert P., Indianapolis
Morton, Philip M., Indianapolis
Mouser, Robert W., Indianapolis
Paik, Chong L., Schererville
Paris, John M., New Albany
Pillay, Vijayaprasanthan, Merrillville
Porapaiboon, Veera, Merrillville
Reed, John J., Hobart
Ritchie, William D., Evansville
Rudolph, Kenneth J., Evansville
Scheer, Alexander L., Elkhart
Seibel, Robert M., Nashville
Shinn, Gloria L., Bluffton
Shoemaker, Richard L., Lafayette
Sidell, James P., New Haven
Silbert, Robert K., Indianapolis
Slama, Thomas G., Indianapolis
Smith, Don H., Richmond
Sonne, Irvin H., New Albany
Spurgeon, Charles H., Indianapolis
Stoltzfus, Virgil D., Valparaiso
Strate, Randall W., Indianapolis
Trier, Herbert P., Fort Wayne
Tyndall, John P., Fort Wayne
Urba, Vytautas V., Munster

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INDICATIONS AND USAGE: These preparations are indicated for the treatment of infections caused by susceptible strains of designated microorganisms as follows: Respiratory Tract Infections (e.g., tonsillitis, pharyngitis, and lobar pneumonia) due to *S. pneumoniae* (formerly *D. pneumoniae)* and group A beta-hemolytic streptococci [penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever; Velosef (Cephradine, Squibb) is generally effective in the eradication of streptococci from the nasopharynx; substantial data establishing the efficacy of Velosef in the subsequent prevention of rheumatic fever are not available at present]; Otitis Media due to group A beta-hemolytic streptococci, *H. influenzae,* staphylococci, and *S. pneumoniae;* Skin and Skin Structures Infections due to staphylococci and beta-hemolytic streptococci; Urinary Tract Infections, including prostatitis, due to *E. coli, P. mirabilis, Klebsiella* species, and enterococci *(S. faecalis).*

Note: Culture and susceptibility tests should be initiated prior to and during therapy.

CONTRAINDICATIONS: In patients with known hypersensitivity to the cephalosporin group of antibiotics.

WARNINGS; *Use cephalosporin derivatives with great caution in penicillin-sensitive patients since there is clinical and laboratory evidence of partial cross-allergenicity of the two groups of antibiotics; there are instances of reactions to both drug classes (including anaphylaxis after parenteral use).* In persons who have demonstrated some form of allergy, particularly to drugs, use antibiotics, including cephradine, cautiously and only when absolutely necessary.

Pseudomembranous colitis has been reported with the use of cephalosporins (and other broad spectrum antibiotics); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic use. Treatment with broad spectrum antibiotics alters normal flora of the colon and may permit overgrowth of clostridia. Studies indicate a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin *in vitro.* Mild cases of colitis may respond to drug discontinuance alone. Manage moderate to severe cases with fluid, electrolyte and protein supplementation as indicated. Oral vancomycin is the treatment of choice for antibiotic-associated pseudomembranous colitis

produced by *C. difficile* when the colitis is severe or is not relieved by drug discontinuance; consider other causes of colitis.

PRECAUTIONS: General: Follow patients carefully to detect any side effects or unusual manifestations of drug idiosyncrasy. If a hypersensitivity reaction occurs, discontinue the drug and treat the patient with the usual agents, e.g., pressor amines, antihistamines, or corticosteroids. Administer cephradine with caution in the presence of markedly impaired renal function. In patients with known or suspected renal impairment, make careful clinical observation and appropriate laboratory studies prior to and during therapy as cephradine accumulates in the serum and tissues. See package insert for information on treatment of patients with impaired renal function. Prescribe cephradine with caution in individuals with a history of gastrointestinal disease, particularly colitis. Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. Take appropriate measures should superinfection occur during therapy. Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

Information for Patients: Caution diabetic patients that false results may occur with urine glucose tests (see PRECAUTIONS, Drug/Laboratory Test Interactions). Advise the patient to comply with the full course of therapy even if he begins to feel better and to take a missed dose as soon as possible. Tell the patient he may take this medication with food or milk since G.I. upset may be a factor in compliance with the dosage regimen. The patient should report current use of any medicines and should be cautioned not to take other medications unless the physician knows and approves of their use (see PRECAUTIONS, Drug Interactions).

Laboratory Tests: In patients with known or suspected renal impairment, it is advisable to monitor renal function.

Drug Interactions: When administered concurrently, the following drugs may interact with cephalosporins:

Other antibacterial agents — Bacteriostats may interfere with the bactericidal action of cephalosporins in acute infection; other agents, e.g., aminoglycosides, colistin, polymyxins, vancomycin, may increase the possibility of nephrotoxicity.

Diuretics (potent "loop diuretics," e.g., furosemide and ethacrynic acid) — Enhanced possibility for renal toxicity.

Probenecid — Increased and prolonged blood levels of cephalosporins, resulting in increased risk of nephrotoxicity.

Drug/Laboratory Test Interactions: After treatment with cephradine, a false-positive reaction for glucose in the urine may occur with Benedict's solution, Fehling's solution, or with Clinitest® tablets, but not with enzyme-based tests such as Clinistix® and Tes-Tape®. False-positive Coombs test results may occur in newborns whose mothers received a cephalosporin prior to delivery. Cephalosporins have been reported to cause false-positive reactions in tests for urinary proteins which use sulfosalicylic acid, false elevations of urinary 17-ketosteroid values, and prolonged prothrombin times.

Carcinogenesis, Mutagenesis: Long-term studies in animals have not been performed to evaluate carcinogenic potential or mutagenesis.

Pregnancy: Teratogenic Effects/Impairment of Fertility — Category B: Reproduction studies have been performed in mice and rats at doses up to 4 times the maximum indicated human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cephradine. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

Nursing Mothers: Since cephradine is excreted in breast milk during lactation, exercise caution when administering cephradine to a nursing woman.

Pediatric Use: Adequate information is unavailable on the efficacy of b.i.d. regimens in children under nine months of age.

ADVERSE REACTIONS: Untoward reactions are limited essentially to G.I. disturbances and, on occasion, to hypersensitivity phenomena. The latter are more likely to occur in persons who have previously demonstrated hypersensitivity and those with a history of allergy, asthma, hay fever, or urticaria.

(continued on next page)

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(continued)

The following adverse reactions have been reported following use of cephradine: G.I. — Symptoms of pseudomembranous colitis can appear during antibiotic therapy; nausea and vomiting have been reported rarely. Skin and Hypersensitivity Reactions — mild urticaria or skin rash, pruritus, joint pains. Blood — mild transient eosinophilia, leukopenia and neutropenia. Liver — transient mild rise of SGOT, SGPT, and total bilirubin with no evidence of hepatocellular damage. Renal — transitory rises in BUN have been observed in some patients treated with cephalosporins; their frequency increases in patients over 50 years old. In adults for whom serum creatinine determinations were performed, the rise in BUN was not accompanied by a rise in serum creatinine. Others — dizziness, tightness in the chest, and candidal vaginitis.

DOSAGE: Adults — For respiratory tract infections (other than lobar pneumonia) and skin and skin structures infections: 250 mg q. 6 h or 500 mg q. 12 h. For lobar pneumonia: 500 mg q. 6 h or 1 g q. 12 h. For uncomplicated urinary tract infections: 500 mg q. 12 h; for more serious UTI, including prostatitis, 500 mg q. 6 h or 1 g q. 12 h. Severe or chronic infections may require larger doses (up to 1 g q. 6 h.).

Children over 9 months of age — 25 to 50 mg/kg/day in equally divided doses q. 6 or 12 h. For otitis media due to *H. influenzae:* 75 to 100 mg/kg/day in equally divided doses q. 6 or 12 h but not to exceed 4 g/day. Dosage for children should not exceed dosage recommended for adults. There are no adequate data available on efficacy of b.i.d. regimens in children under 9 months of age.

For full prescribing information, consult package insert.

HOW SUPPLIED: 250 mg and 500 mg capsules in bottles of 24 and 100 and Unimatic® unit-dose packs of 100. 1 g tablets in bottles of 24. 125 mg and 250 mg for oral suspension in bottles of 100 ml and 200 ml.

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Constitution and Bylaws

Indiana State Medical Association

This Printing Incorporates Amendments of the 1982 House of Delegates

Indiana State Medical Association
3935 North Meridian Street
Indianapolis, Indiana 46208

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Constitution

ARTICLE I—TITLE AND DEFINITION

The name of this organization is the Indiana State Medical Association. It is the federacy of Indiana county medical societies.

ARTICLE II—PURPOSES

The purposes of this Association shall be to federate and bring into one compact organization the medical profession of the state of Indiana, and to unite with similar societies of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education; to promote friendly relations among physicians; to protect its members against imposition; and to enlighten and direct public opinion in regard to the great problems of medical care and public health so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III—COMPONENT SOCIETIES

Component societies are those county and district medical societies contained within the state of Indiana, and who hold charters from this Association.

ARTICLE IV—MEMBERS

The Indiana State Medical Association is composed of individual members of county medical societies and others as shall be provided in the Bylaws.

ARTICLE V—HOUSE OF DELEGATES

The legislative and policy-making body of the Association is the House of Delegates composed of elected representatives and others as provided in the Bylaws. The House of Delegates shall transact all business of the Association not otherwise specifically provided for in the Constitution and Bylaws and shall elect the general officers, except trustees, as otherwise provided in the Bylaws.

ARTICLE VI—OFFICERS

The general officers of the Association shall be a president, president-elect, immediate past president, treasurer, assistant treasurer, speaker, vice speaker, trustees and the executive director. Their qualifications and terms of office shall be provided in the Bylaws.

ARTICLE VII—TRUSTEES

The Board of Trustees is composed of trustees and alternate trustees elected by the component district medical societies, and the president, the president-elect, treasurer, immediate past president, the assistant treasurer, with power to vote only in the absence of the treasurer, and the speaker and vice speaker without power to vote and the exccutive director without power to vote. The alternate trustees have power to vote only in the absence of the trustee.

The Board of Trustees shall have charge of the property and financial affairs of the Association and shall perform such duties as are prescribed by the law governing directors of corporations or as may be prescribed in the Bylaws.

ARTICLE VIII—THE CONVENTION

The House of Delegates and the general scientific program shall be convened annually and at such other times as deemed necessary or as provided in the Bylaws, in cities recommended by the Board of Trustees and approved by the House of Delegates.

ARTICLE IX—FUNDS, DUES AND ASSESSMENTS

Funds may be raised by annual dues or by assessment of the active members on recommendation of the Board of Trustees and after approval by the House of Delegates, or in any other manner approved by the Board of Trustees as provided in the Bylaws.

ARTICLE X—AMENDMENTS

The House of Delegates may amend this Constitution at any convention provided the proposed amendment shall have been introduced at the preceding annual convention and provided two-thirds of the voting members of the House of Delegates vote approval and provided that it shall have been published twice during the year in THE JOURNAL of the Association.

Bylaws

This printing incorporates amendments of the 1982 House of Delegates, Indiana State Medical Association.

1.00 MEMBERSHIP – QUALIFICATIONS, ELECTIONS AND RIGHTS

1.01 Categories: Categories of membership are: 1) Regular; 2) Dues Exempt; 3) Intern and Resident; 4) Medical Student; 5) Distinguished; 6) Honorary.

1.0101 REGULAR MEMBER: The term "Regular Member" as used in these Bylaws shall be: 1) A person who holds the degree of Doctor of Medicine or Bachelor of Medicine, or who holds an unrestricted license to practice medicine. 2) A member in good standing of a component county society and who has paid to this Association annual dues, provided, however, that 3) the person is a citizen of the United States of America, or has filed the declaration of intention of becoming a citizen and the first citizenship papers are in full force and effect.

1.0102 DUES EXEMPT MEMBER: The term "Dues Exempt Member" as used in these Bylaws shall include the following:

1.010201 Senior Member. Senior Members shall be eligible for Senior Membership on January 1 following their 70th birthday and they shall be physicians of the state of Indiana and who have held their membership in the Indiana State Medical Association for 20 years or more; or who have held membership in the Indiana State Medical Association or in some one or more other like state organization(s) which is a component state organization of the American Medical Association, for a combined total of 20 years or more, and who, upon their application, have been certified to the Executive Director as eligible for such membership by the county societies of which they are members. It shall be the duty of the county medical society to verify, through the office or offices of any other state organization or organizations, the fact of membership therein when such membership is claimed as part compliance with the eligibility requirement of 20 years of membership.

1.010202 Disabled Member. Disabled Members shall consist of physicians of the state of Indiana who are certified by a member physician to be permanently disabled and no longer able to practice medicine. Proof of permanent disability shall be by notification to the Executive Director of the Association by the secretary of the county medical society in which the permanently disabled physician holds membership.

1.010203 Inactive Membership. Members who decide voluntary inactivity prior to the age of 70 shall be exempt from payment of membership dues for the duration of their inactive status when notification is received by the Executive Director of the Association from the secretary of the county medical society in which such inactive member holds membership. In deciding whether to approve a member's eligibility, the county medical society shall determine that the member has ceased the practice of medicine in the state of Indiana.

1.010204 Financial Hardship. In the event the county relieves a member from the payment of dues because of financial hardship, the secretary of the county medical society shall recommend in writing to the Executive Director of ISMA the relief from State Association dues of said member of the society, showing why such recommendation should be granted.

1.0103 INTERN AND RESIDENT MEMBER: Interns and Residents who hold membership in the Indiana State Medical Association shall have all the rights and privileges of this Association.

1.0104 MEDICAL STUDENT MEMBER: Medical students who attend an accredited medical school in Indiana are members of this Association. Student members may subscribe to THE JOURNAL.

Medical Student Members may be represented in the House of Delegates with the power to vote. Medical students may hold office as stated in 3.0212. They shall be entitled to send one student delegate or one student alternate delegate to the House of Delegates. Student delegate and alternate are to receive THE JOURNAL of the State Association free of charge.

The Student Council of the Indiana University School of Medicine shall elect a student delegate and alternate delegate from nominees presented to them from each class. All resolutions introduced in the name of the student body must be presented through the Student Council func-

tioning as the executive body of the student members—in effect, a student component society.

1.0105 DISTINGUISHED MEMBER: Members who have fulfilled the American Medical Association's Physician Recognition Award requirements of 150 hours for three years of continuing medical education as a minimum shall be designated as Distinguished Members.

1.0106 HONORARY MEMBER: Honorary Members shall consist of physicians, teachers, scientists and others of distinction who have rendered highly meritorious service to the profession of medicine, upon whom the Association may, through action of the House of Delegates, desire to bestow such membership as a special honor. Honorary members hereafter shall hold such membership as an honor and distinction and by invitation may attend meetings of the Association. They shall not be required to pay dues in the State Association. Such honor may only be bestowed by a vote or acclamation of the House of Delegates.

1.02 Qualifications: The Regular, Dues Exempt, Distinguished and Resident Members of this Association shall be the members of the component county medical societies and no county medical society shall grant membership therein on a basis that does not include membership in the district medical society and in the Indiana State Medical Association.

1.03 Rights, Privileges and Responsibilities of Members:

1.0301 Rights and Privileges by Membership Category: All members of ISMA may attend the Annual Convention. With the exception of Honorary Members, all ISMA members are eligible to vote and hold office as specified elsewhere in these Bylaws. Medical Student Members may participate in the democratic process as defined in 1.0104.

1.0302 Attendance at Annual Convention: Members attending the Annual Convention and other meetings shall register by indicating the component society of which they are members. At the Annual Convention when membership has been verified, by reference to the roster (students excepted) of members, they shall receive a badge which shall be evidence of their right to all the privileges of membership at that convention. Members may not take part in any of the proceedings of an Annual Convention until they have complied with the provisions of this section.

1.0303 Suspension or Revocation of License: No person whose license to practice medicine has been suspended or revoked or who is under sentence of suspension or expulsion from a component society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Association or of a component county society, or shall said person be permitted to take part in any of their proceedings until the license and/or county membership has been restored. This shall not apply to physicians who have surrendered their license because of retirement under the provisions of the Medical Practice Law.

2.00 INCOME AND EXPENSES

2.01 Income: Funds for carrying on the activities of the Association shall be raised by the following means:

2.0101 Dues: Membership dues to be collected may be collected by the Indiana State Medical Association or by the component county societies. The amount of dues of each component society shall be fixed by the society itself, and the amount of dues for this Association shall be fixed from time to time by the House of Delegates.

Dues are payable by January 15, and become delinquent on that date. The Board of Trustees shall have the power to suspend any member who has not paid dues in full by April 30. The member shall sacrifice all rights and privileges of membership of this Association until said annual dues are received in full by the Indiana State Medical Association.

For new members joining ISMA, dues will be calculated on a pro-rated monthly basis.

2.010101 Dues Refund: A request for refund of dues will be acted upon by the Board of Trustees of the Indiana State Medical Association in its wisdom. A letter of certification from the county society secretary to the Executive Director of the Indiana State Medical Association to request an exemption of dues must state that the county is also exempting said dues. Upon request and approval, dues will be refunded on a monthly pro-rata basis. Dues Exempt members may receive THE JOURNAL upon payment of the applicable subscription price set by the ISMA Board of Trustees. With the exception of Senior members, all Dues Exempt Members will be reviewed annually, to determine their eligibility, by their county medical societies.

2.010102 Reduced Dues: The Indiana State Medical Association dues for Regular Members in their first year of practice following formal training shall be one-half the amount as

may be established by the House of Delegates. County medical societies are encouraged to follow the same policy.

2.010103 Change in Dues Structure: The final vote on any issue calling for changes in dues or in dues structure shall be by roll call vote of the House of Delegates. Each member's vote shall be permanently recorded.

2.0102 Voluntary contribution.

2.0103 Revenues derived from the Association's publications.

2.0104 Revenue derived from ISMA activities or services approved by the Board of Trustees.

2.0105 Assessments approved by the House of Delegates.

2.02 Expenses: Funds shall be appropriated by the Board of Trustees to defray the expenses of the Association, for publications, and for such other purposes as will promote the welfare of the profession. All motions and resolutions recommending the appropriation of funds by the House of Delegates must be referred to the Executive Committee for recommendation before final action is taken by the House of Delegates.

3.00 CONVENTION AND MEETINGS

3.01 Annual Convention: The Association shall hold a Convention at least annually during which the business and legislative sessions of the House of Delegates shall be held.

3.0101 Selection of Site: The House of Delegates shall select the place five years in advance of holding the Annual Convention. The time for the Convention shall be fixed by the Board and the Board shall have the power also to change the place for holding the Convention where conditions may create difficulties in holding a successful Convention at the place designated by the House of Delegates. Any of the component member county societies wishing to invite the Indiana State Medical Association to hold its Annual Convention in its locality shall submit an invitation in writing at least five years in advance to the Board of Trustees. The Board of Trustees shall make an investigation of the facilities and in turn make a recommendation for the location of the Annual Conventions for concurrence by the House.

3.02 BUSINESS AND LEGISLATION MEETINGS—HOUSE OF DELEGATES

(Referred to elsewhere in these Bylaws as House)

3.0201 Composition: The House of Delegates shall be the legislative and policymaking body of the Association and shall consist of voting and nonvoting members.

Only members of the House of Delegates are entitled to speak on the floor of the House except as defined in 3.0210.

3.020101 Voting Members: 1) Delegates or the designated Alternates, elected by the component county societies; 2) Trustees or the designated Alternates, 3) Speaker, 4) Vice-Speaker, 5) Past Presidents.

3.020102 Non Voting Members: 1) The Section Delegate or designated Alternate Section Delegate elected by the respective section shall also be a member, 2) President, 3) President-Elect, 4) Executive Director, 5) Treasurer, 6) Assistant Treasurer, 7) the Delegates and Alternate Delegates to the American Medical Association.

3.020103 No delegate member of the House shall lose the right to vote by virtue of any office that delegate may hold.

3.0202 Parliamentarian: The Speaker may appoint a Parliamentarian for the Annual Convention, who need not be a member of the House and who shall advise the House on parliamentary matters, without voting privileges as Parliamentarian.

3.0203 Meetings

3.020301 Regular Meetings: The House of Delegates may meet on the day before the date set for the beginning of the general registration of the attendance at the Annual Convention. It may recess from time to time as may be necessary to complete its business, provided that its hours shall conflict as little as possible with the general or section meetings. It shall meet on the last day of the Annual Convention for the election of officers for the ensuing year and for the completion of any business previously introduced. The order of business shall be arranged as a separate section of the program. Nominations for officers of the Association may be made at any session of the House of Delegates.

3.020302 Special Meetings: Special meetings of the House of Delegates shall be called by the President upon a petition signed by thirty (30) delegates. The signed petition shall contain the names of at least ten (10) delegates from each of at least three (3) Trustee Districts. The President shall issue a call for same as described in 3.0404, second paragraph.

3.0204 House Admission: All sessions of the House of Delegates shall be open to all members in good standing of this Association for observation.

3.0205 Delegate Apportionment: Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members and one for each major fraction thereof, but irrespective of the number of members, each component society which has made its annual report and paid its assessments, as provided in this Constitution and Bylaws, shall be entitled to one Delegate, except that where a component society is made up of physicians of more than one county each county shall be entitled to at least one Delegate and one Alternate Delegate who shall be a resident of the county represented as a Delegate and who shall be selected by the physicians residing in such county. The Student Delegate shall be seated with full power to vote. In the absence of the Student Delegate, the Alternate Student Delegate shall be seated with full power to vote.

3.020501 Method of Determination of the Number of Delegates: The number of Delegates to which each component society is entitled shall be based upon the number of members in good standing with dues fully paid as of December 31 of the preceding year.

3.020502 Section Delegates: All sections listed in 3.0303 of these Bylaws and which are in compliance with 3.0302 and 3.0306 of these Bylaws shall be entitled to send to the House of Delegates each year one Delegate or Alternate Delegate with all rights and privileges except the power to vote.

3.020503 Delegate Credentials: The names of duly elected Delegates and Alternates from each component society shall be sent to the Executive Director of this Association on or before February 1, prior to the Annual Convention at which such Delegates are to serve. No one shall be entitled to a seat in the House of Delegates unless a credential card as a Delegate or Alternate, properly signed by the Secretary of the appropriate county medical society or the Executive Secretary or Executive Director of the larger societies, is presented to the Committee on Credentials at the time of the Annual Convention.

3.0206 Quorum: Fifty (50) Delegates shall constitute a quorum.

3.0207 Authority and Responsibilities:

3.020701 Resolutions and Proposals: The House of Delegates shall approve all memorials and resolutions issued in the name of the Association before same shall become effective.

3.020701a Fiscal Note: Proposals calling for appropriation of funds by the House of Delegates shall be accompanied by a fiscal note and shall be submitted to the Executive Committee and the Board for review, presentation and recommendation for final action of the House. No proposal calling for appropriations shall be considered if not accompanied by a fiscal note.

3.020701b Deadlines for Resolutions: Except as noted in 3.020701c and in 3.021102, all resolutions to be presented to the House of Delegates for action shall be prepared and mailed to the Executive Director of the Association so that they will be received not later than 45 days prior to the session of the House of Delegates to which the resolutions will be presented for action.

3.020701c Late Resolutions: Except for matters of extreme emergent nature, all late resolutions must be received by the Executive Director seven (7) days prior to the opening session of the House of Delegates. Those resolutions received after forty-five (45) days prior to the first session of the House of Delegates will be referred to the Committee on Rules and Order of Business. The Committee on Rules and Order of Business shall submit a report to the House concerning all items considered by same with recommendation(s) limited to the appropriateness of consideration of said resolutions.

The Committee on Rules and Order of Business will meet approximately seven (7) days prior to the Annual Convention. Provided, that where a resolution has been first submitted to the Committee on Rules and Order of Business together with a written statement setting forth the reasons why the resolution was not mailed to the Executive Director more than forty-five (45) days prior to the first session of the House of Delegates and also setting forth in the written statement the reasons why the resolution is of such an emergency nature that it cannot wait until the next meeting of the House. The report of the Committee on Rules and Order of Business shall be considered in the same manner as any other reference committee report. The House may accept or reject any recommendation of the

Committee, which shall make recommendations on each resolution considered. Discussion on the floor will be limited to one speaker in dissention with the Committee's recommendation. This discussion will be limited to the appropriateness of consideration and not the merits of the resolution itself.

The House, in considering the report of the Committee on Rules and Order of Business, determines it is appropriate to consider said resolution for submission to the House and that each Delegate shall be furnished a copy, then subsection 3.020701b of these Bylaws may be suspended upon a two-thirds vote of the House of Delegates.

3.0208 Election of Delegates to the American Medical Association: The House of Delegates shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body. Upon expiration of an AMA Delegate's or Alternate Delegate's term, election of a qualified member shall be accomplished to fill each specific vacancy thereby created. An AMA Delegate and Alternate Delegate may succeed himself or herself in office or be elected to fill any other vacancy in the delegation. In the event of a permanent vacancy occurring among the AMA Delegates, the remaining elected Delegates and Alternates to the AMA shall meet and nominate one of the Alternates to assume the vacancy until the next meeting of the Indiana State Medical Association House of Delegates, at which time the House will fill such vacancy. The nominated member proposed by the AMA delegation shall be subject to the confirmation of the Board of Trustees.

3.0209 Organizing Districts: The House of Delegates shall provide for the organization of such Trustee District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies. Trustee districts shall be defined by the House of Delegates. The House shall divide the state into Trustee Districts, specifying which counties each district shall include, and when the best interest of the Association and profession will be promoted thereby, organize in each district a medical society, and all members of component county societies, and no others, shall be members of such district societies.

3.0210 Authority to Appoint Special Committees: The House shall have the authority to appoint committees for special purposes from among members of the Association who need not be members of the House of Delegates. Such committees shall report to the House of Delegates, and the members of such committees may be present and participate on the floor in the debate of their reports.

3.0211 Reference Committees and Committee on Rules and Order of Business:

3.021101 Reference Committees: Immediately after the organization of the House of Delegates at each Annual Convention, the Speaker shall announce the membership of the Reference Committees to serve during the convention for which they are appointed.

Appointments of these Reference Committees shall be made by the Speaker. The Chairman of each committee shall also be appointed by the Speaker. The Speaker shall also appoint such additional House committees as the House may approve. All committees hereunder shall serve only during the convention at which they are appointed. Appointments shall be made in time to be published in THE JOURNAL and the Handbook prior to such Annual Convention. The Speaker shall have the power to appoint substitutes from among members present for absent appointees. Each committee shall consist of at least five ISMA members, three of whom including the chairman, shall be delegate-members of the House. To these committees shall be referred all reports, resolutions, measures and propositions presented to the House of Delegates, except matters as properly come before the Board, and the recommendations of these committees shall be submitted to the next session of the House of Delegates for acceptance in the original or modified form or for rejection.

3.021102 Responsibilities of Reference Committees: Four or more Reference Committees designated by numerals are hereby constituted to which all matters shall be referred, at least one of which shall be organized for the sole purpose of studying the addresses of the President, President-Elect, report of the Executive Director, and Chairman of the Board of Trustees. This Committee shall be expected, as it deems appropriate, to translate recommendations made by these officers through resolutions for presentation to the House.

Where a report, resolution, measure or

proposition deals with more than one subject matter, reference thereof, may at the discretion of the Speaker of the House, be made (a) to as many Reference Committees as are necessary to cover all subjects included therein; or (b) to only one Reference Committee which the Speaker deems has within the scope of its reference the most important part of the matter referred.

No report of any Reference Committee shall be rejected on the ground that it covers something not included in the matters which such Committee was created to consider.

3.021103 Time and Place of Meetings: The time and place of meetings of all Reference Committees shall be publicly posted, and all meetings of all Reference Committees shall be open only to members of this Association. Officers and chairmen of all commissions and committees whose reports are referred to Reference Committees are expected to appear and be heard before the respective committees to which such references are made in regard to their reports.

3.021104 Non-Member Attendance: Persons who are not members of the Indiana State Medical Association and seek to appear and present their technical or reference material to the Reference Committee must receive approval to appear on that specific subject from the Reference Committee Chairman. Such persons must register as guests at the committee and be at the call of the Reference Committee Chairman for testimony, after which they may be excused from further attendance.

3.021105 Committee on Rules and Order of Business: The Committee on Rules and Order of Business shall be composed of the Chairmen of the various Reference Committees appointed by the Speaker. This committee shall be charged with the duties as set forth in 3.020701c of these Bylaws.

3.0212 Election of Officers: The officers of this Association with the exception of the Executive Director and the Board of Trustees shall be elected by the House of Delegates, as the first order of business at the final session of the House of Delegates, and no person shall be elected to any such office who has not been an active member of the Association for the preceding two years. The officers, except the Executive Director and the Trustees, shall be elected annually. All officers shall serve until their successors are elected and installed.

3.021201 Method of Election: All elections shall be by ballot and a majority of the votes cast shall be necessary to elect. In case no nominee receives a majority on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken.

3.021202 Terms: The President, President-Elect, Speaker, Vice-Speaker, Treasurer and Assistant Treasurer shall serve from the termination of the annual meeting of the House of Delegates in which all but the President are elected until the termination of the succeeding annual meeting of the House of Delegates.

3.021203 Oath: The officers of the Association shall be installed by taking the following oath of office to be administered by the out-going President of the Association at the final session of the House of Delegates:

Oath

I, , solemnly swear that I shall carry out to the best of my ability, the duties of the office of the Indiana State Medical Association to which I have been elected.

I shall strive constantly to maintain the ethics of the medical profession and to promote the public health and welfare. I shall dedicate myself and my office to improving the health standards of the American people and to do the task of bringing increasingly improved medical care within the reach of every citizen.

I shall uphold the Constitution of the United States of America and of the State of Indiana, the Constitution and Bylaws of the American Medical Association and the Constitution and Bylaws of the Indiana State Medical Association at all times.

I shall champion the cause of freedom in medical practice and freedom for all my fellow Americans. To these duties and obligations, I pledge myself, so help me God.

3.03 MEETINGS OF SPECIALTY SECTIONS

3.0301 Purpose: The purpose of Specialty Sections of ISMA is to provide a forum in ISMA and the House of Delegates, to have an active input into the scientific meeting, to introduce resolutions and have a voice on the floor of the House.

3.0302 Meetings: Each section will be required to have a minimum of one meeting annually. Minutes of the meeting will be required. A copy of the minutes and the names of the officers shall be

forwarded to the Speaker of the House and will become a permanent record of the House.

3.0303 Official Sections: During the Annual Convention the Association in addition to the general meetings may hold the following section meetings:

- 3.030301 Allergy
- 3.030302 Anesthesia
- 3.030303 College Health Physicians
- 3.030304 Cutaneous Medicine
- 3.030305 Directors of Medical Education
- 3.030306 Emergency Medicine
- 3.030307 Family Physicians
- 3.030308 Internal Medicine
- 3.030309 Interns and Residents
- 3.030310 Medical Directors and Staff Physicians of Nursing Facilities
- 3.030311 Nervous and Mental Diseases
- 3.030312 Neurological Surgery
- 3.030313 Nuclear Medicine
- 3.030314 Obstetrics and Gynecology
- 3.030315 Ophthalmology
- 3.030316 Orthopedic Surgery
- 3.030317 Otolaryngology, Head and Neck Surgery
- 3.030318 Pathology and Forensic Medicine
- 3.030319 Pediatrics
- 3.030320 Preventive Medicine and Public Health
- 3.030321 Radiology
- 3.030322 Surgical
- 3.030323 Urology

3.0304 Formation of Sections: Any future section can only be formed by a properly constituted resolution and shall include the signatures of a minimum of fifteen (15) members or 25% of the members, whichever is greater, who are practicing that specialty in the state of Indiana. The resolution shall be subject to the decision of the House of Delegates.

3.0305 Officers: The officers of each section shall be a Chairman, a Vice-Chairman, and a Secretary, and they shall preside over the meetings of the section and shall be responsible to the Commission on Convention Arrangements for the section speakers and papers.

3.0306 Officer Elections: The election of officers shall be held at a meeting of the section annually. The names of the officers shall be forwarded to the Speaker, and will become a permanent record of the House.

3.0307 Restriction on Meetings: No section meeting shall be allowed to conflict with a general meeting.

3.0308 Failure to Comply: Any section not complying with the preceding shall not have a delegate in the House.

3.04 MEETINGS FOR THE GENERAL MEMBERSHIP

3.0401 General Meetings for the Membership: General Meetings shall mean all meetings planned for attendance by all registered members and shall include those meetings in which guests of registered members or the general public are also invited. The address of the President may be delivered in a General Meeting, and the programs of General Meetings shall be arranged by the Executive Committee except where scientific papers are included, in which event the scientific part of the program shall be arranged by the Commission on Convention Arrangements, with the sanction and approval of the officers.

3.0402 Purposes of Meetings for the General Membership: Meetings of the Association:

- 3.040201 Scientific Presentations and Discussions. (Quorum NOT necessary)
- 3.040202 Dissemination of Information of Interest to the General Membership. (Quorum NOT necessary)
- 3.040203 Appointment of Committees: The General or Section Meetings may recommend to the House of Delegates the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and public. (Quorum NOT necessary)
- 3.040204 Issue Mandates to the House: Matters of vital concern to the general membership may be referred to the House of Delegates who shall act as expeditiously as possible utilizing the usual parliamentary procedures in order to serve the needs of the profession in the most equitable fashion. (QUORUM NECESSARY)
- 3.040205 Order Referendums: As described in 9.01 (QUORUM NECESSARY)

3.0403 Quorum for General Membership Meetings: For the purpose of transacting official business, a quorum of one hundred fifty (150) members must be present at a General Meeting of the Association.

3.0404 Special Meetings for the General Membership: Special Meetings for the general membership shall be called by the President upon receipt of a petition signed by one hundred (100) members representing a minimum of three (3) Trustee districts, with no one district providing more than thirty-four (34) of the required one hundred (100) signatures.

Upon receipt by the President of such a petition, the President shall within thirty (30) days thereafter issue a call for such special meeting, and shall state the items of business to be considered, at a time and place fixed by the President. The

President, in specifying the time of such special meeting, shall fix the same as soon thereafter as reasonable and suitable arrangements can be made.

4.00 OFFICERS

4.01 Composition: The officers of this Association shall be a President, a President-Elect, the Immediate Past President, an Executive Director, a Treasurer, an Assistant Treasurer, a Speaker, a Vice-Speaker, each of whom shall be a member, except the Executive Director, who need not necessarily be either a physician or a member.

4.0101 Limitation: The offices of President, President-Elect, the Immediate Past President, Treasurer, Assistant Treasurer, Speaker, Vice Speaker, as well as AMA Delegates, AMA Alternate Delegates, and ISMA Trustees and ISMA Alternate Trustees are major offices. Individuals may not hold more than one major office during a given term and must resign from a major office if they attain a second.

4.0102 Delinquent Dues: A major office holder in ISMA who is delinquent in paying dues will not be allowed to vote in that capacity until annual dues are paid in full.

4.02 Removal, Death, Resignation, Vacancy: Any officer may be removed from office after a hearing before the Board on thirty (30) days notice, on charges in writing, upon a vote of three-fourths of the members of the Board.

In the event of the death, resignation, removal or permanent disability of any officer of this Association whose successor is not otherwise provided for in these Bylaws, the vacancy shall be filled by the Board of Trustees until the next official meeting of the House. The Board shall fill a vacancy in the office of Treasurer or Assistant Treasurer by an election by the Trustees at the next regular meeting of the Board following the occurrence of such vacancy.

4.03 Duties

4.0301 President: The President, or a member designated by the President shall preside at all general meetings of the Association. The President shall appoint all committees not otherwise provided for; shall appoint the chairman of each commission and committee; shall fill the vacancies resulting from the expiration of terms of members of commissions, and also appoint members to fill the unexpired term where any vacancy occurs. The President will have the power, with the approval of the Board, to remove any member of any committee or commission as defined in 7.04. Within 60 days after the Annual Convention, the President may call all commissions and committees into a joint meeting as defined in 7.06. Charters of county societies as defined in 11.01, and approved by the Board shall be signed by the President and Executive Director. Special meetings of either the Association or the House of Delegates shall be called by the President as defined in 3.020302 and 3.0404 of these Bylaws.

The President shall deliver an annual address at such time as may be arranged by the Executive Committee, and shall perform such other duties as custom and parliamentary usage may require. The President shall be the real head of the profession of the state during the term of office, and as far as practicable, shall visit by appointment the various sections of the state and assist the trustees in building up the county societies and in making their work more practical and useful.

Ex-officio, the President shall be a member of all commissions, committees and the Board of Trustees.

4.0302 President-Elect: The President-Elect's term of office shall be for one year, at the completion of which the President-Elect succeeds to the presidency. The President-Elect shall assist the President in the discharge of duties. Ex-Officio, the President-Elect shall be a member of all commissions and committees.

In the event the office of President is vacant, the President-Elect will assume the office of President.

4.0303 Treasurer: The Treasurer shall give bond at the expense of the Association in such an amount as shall be required by the Board unless included in the coverage of a blanket or position bond. The Treasurer shall receive all bequests and donations to the Association and shall demand and receive all funds due the Association in the conduct of its business. The funds of the Association shall be deposited in a depository or depositories designated by the Executive Committee, and withdrawals from such funds shall be made on checks or drafts signed by the Treasurer, the Assistant Executive Director, and/or other officers of the Association as the Executive Committee may designate. The Treasurer shall present to the House of Delegates annually a report of the receipts and expenditures, and the state of funds on hand.

4.0304 Assistant Treasurer: The Assistant Treasurer shall give bond at the expense of the Association in such amount as shall be required by the Board unless included in the coverage of a blanket or position bond. In case of death or incapacity of the Treasurer, the Assistant Treasurer shall suc-

ceed to all the duties and rights of the Treasurer until a new Treasurer is elected. In the absence of the Treasurer, the Assistant Treasurer shall attend to the duties and rights of the Treasurer during such absence and shall also perform such duties of the Treasurer as may be delegated and assigned by the Treasurer.

4.0305 Executive Director: The Executive Director shall be the directing manager of the Association's headquarters and THE JOURNAL offices, and shall supervise the work of all salaried employees in the Association offices. Such supervision shall be subject to directives from the House of Delegates, the Board, the Executive Committee, and the President of the Association. The Executive Director shall discharge the administrative functions of the Association not within the duties of other officers or of committees to perform. The Executive Director shall assist, at their request, all officers and committees, and shall keep informed in regard to nonprofessional matters affecting the medical profession, for the purpose of keeping qualified to perform the services herein mentioned. The Executive Director shall be responsible for the execution and carrying out of the policies of the Association and in that connection shall perform all specific tasks required by the committees, the Board and the officers of this Association.

A major office holder whose dues are delinquent will be personally notified of this delinquency by the Executive Director of ISMA. The amount of the Executive Director's salary shall be fixed by the Executive Committee on approval of the Board.

4.0306 Speaker: The Speaker shall be elected annually from the membership of the House. The Speaker shall preside at all meetings of the House of Delegates and shall perform such duties as custom and parliamentary usage require. The Speaker shall have the right to vote as a delegate member of the House.

The Speaker may address the House of Delegates at the opening session of all conventions, limiting the address to matters of conduct and procedure of the House.

The Speaker shall be further charged with the duties as defined in these Bylaws (e.g., 3.0202, 3.021101, 3.021102 and 3.0302). Ex-officio, the Speaker shall be a member of all commissions and committees and the Board of Trustees of this Association without the power to vote. Training in parliamentary procedure shall be mandatory for the Speaker and shall be provided at the expense of the Association. In the event the offices of President and President-Elect are vacant, the Speaker of the House of Delegates will assume the office pro tem until the next called or regularly scheduled meeting of the House when a President and a President-Elect will be elected.

4.0307 Vice Speaker: The Vice Speaker shall be elected annually from the membership of the House. The Vice Speaker of the House of Delegates shall officiate at meetings in the absence of the Speaker or at the request of the Speaker. The Vice Speaker shall have the right to vote as a delegate member of the House. Ex-officio, the Vice Speaker shall be a member of all commissions and committees and the Board of Trustees of this Association without the power to vote. Training in parliamentary procedure shall be mandatory for the Vice Speaker and shall be provided at the expense of the Association.

4.04 Expenses: The necessary expenses of the above officers incurred in the line of duty herein imposed shall be allowed for in the budget but, excepting the Executive Director, this shall not include the expenses of attending the Annual Convention.

5.00 BOARD OF TRUSTEES

(Referred to elsewhere in these Bylaws as Board)

5.01 Composition/Voting Power: The Board of Trustees shall consist of: 1) The Trustees with power to vote and their duly elected Alternates, each of the latter without power to vote except when the Trustee is not in attendance; and 2) ex-officio, the President, President-Elect, Treasurer, Immediate Past President with power to vote, Assistant Treasurer without power to vote except in case the Treasurer is not in attendance, and the Speaker, Vice Speaker, and Executive Director without power to vote.

5.02 Authority: The Board shall be the executive body of the Association with full power to transact any business that emergencies or the welfare of the Association may require, and perform and exercise all of the rights and duties as specified in this section.

5.0201 The Board will declare major office holders who are delinquent in paying their dues as suspended from the office after February 1, at which time such officers shall sacrifice all rights and privileges of the office until said dues are received in full by ISMA.

5.03 Election: Trustee and Alternate. The Trustees shall be elected by the respective district societies. If any district fails to meet and elect its Trustee(s) or Alternate Trustee(s) by the time of the expiration of

the incumbent's term of office, the Executive Director of the Association shall cause a special meeting to be called by said district society for the purpose of such election.

5.04 Meetings and Terms:

5.0401 Regular Meetings: The Board shall meet as follows: 1) The Board shall meet at least once each quarter of the calendar year, the time, date and location to be fixed by the Board. 2) On the day preceding the first day of the scientific meetings of the Annual Convention of the Association. 3) On the last day of the Annual Convention of the Association after the adjournment of the House of Delegates. 4) At such other times as necessity may require, subject to the call of the Chairman. It shall hold no meeting that will conflict with any meeting of the House of Delegates. Notice of each regular meeting shall be given at least ten (10) days before such meeting.

5.0402 Special Meetings: Special meetings may be called at any time by the Chairman or at the request of seven (7) members of the Board. Notice shall be given at least five (5) days before each special meeting. The notice shall specify the general purpose of and business to be transacted at the meeting.

5.0403 Quorum: Twelve (12) members of the Board shall constitute a quorum.

5.0404 Attendance at Meetings: If any elected Trustee fails, without reason acceptable to the Board, in any calendar year to attend a majority of the meetings of the Board, said person shall thereby cease to be a Trustee, and the Executive Director shall take action in accordance with 5.05.

5.0405 Meeting Notices: Notice is given if delivered in person, by telephone, mail or telegram. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail, addressed to a Trustee (and other persons entitled to notice) at the Trustee's address then appearing on the records of the Association, with postage prepaid, and if given by telegraph, shall be deemed delivered when the telegram is delivered to the telegraph company.

Notice of any meeting and the object of business to be transacted at a meeting of the Board need not be given if waived in writing, or by telegraph, mail, or telephone before, during, or after such meeting. Attendance at any meeting shall constitute a waiver of notice of such meeting except where attendance is for the express purpose of objecting to the transacting of any business because the meeting is lawfully called or convened.

5.0406 Terms of Trustees: Terms of Trustees shall begin with the first meeting of the Board following the final session of the House of Delegates at the Annual Convention.

The term of the elected Trustees shall be for three years and approximately one-third of the number shall be elected annually. No Trustee shall be eligible to serve longer than two terms consecutively.

The time given to serving an unexpired term shall not be considered in determining the period within which a Trustee may serve consecutively.

5.0407 Alternate Trustees: Each Trustee district shall elect an Alternate Trustee whose term of office shall be for three (3) years. The Alternate Trustee shall be elected in a year during which the Trustee is not elected. No Alternate Trustee shall be eligible to serve longer than two terms consecutively. The time given to serving an unexpired term shall not be considered in determining the period within which an Alternate Trustee may serve consecutively.

5.05 Vacancies: In the event of a vacancy occurring from any cause, except expiration of the term of office, in the office of a District Trustee, the duly elected Alternate Trustee from the same district shall succeed to the office of the Trustee in that District for the unexpired term of said Trustee. In the event the Alternate Trustee succeeds the Trustee for any cause, with the exception of expiration of term of office, the President of the District Medical Society shall assume the office of Alternate Trustee until such time as a new Trustee is elected. In the event vacancies occur in any Trustee District in the offices of both Trustee and Alternate Trustee, the vacancies shall be filled by an election by the members of the Association within the Trustee District in which the vacancies occur. A call for such elections shall be issued by the Executive Director of the Indiana State Medical Association following a conference(s) with the officers of the District organization. The call shall state the time and place of holding the election and shall be sent registered mail to the County Secretary, as filed in the Indiana State Medical Association Executive Director's office, of each component society within the District. Such call shall be mailed within ten (10) days after the Executive Director of ISMA has learned of the vacancies. The election may be held at a regular meeting at which business other than the election may be transacted. Such election shall be within fifteen (15) days after the Executive Director of the Indiana State Medical Association shall have mailed such call.

5.06 Organization and Duties: Immediately following the conclusion of the Annual Convention, the Board shall organize by electing a Chairman, who shall serve for one year; and a Clerk who, in the absence of the

Executive Director of the Association, shall keep a record of its proceedings and who in the absence of the Chairman will act as Chairman Pro-Tem. It shall, through its Chairman, make an annual report to the House of Delegates. The Chairman of the Board shall be elected by secret ballot. The number of terms of the Chairman shall be limited to not more than three (3) in succession. The chairman of the Board of Trustees shall be an ex-officio member of all ISMA standing commissions and committees.

5.0601 Election of At-Large Members to Executive Committee: The Board shall, at its meeting following the close of the House of Delegates, elect two (2) members of the Board as at large members who, with the President, the President-Elect, the Immediate Past President, the Chairman of the Board, the Treasurer, the Assistant Treasurer, with the power to vote in the absence of the Treasurer, and ex-officio the Speaker and Vice Speaker without power to vote shall constitute and be known as the Executive Committee. Members of the Committee shall serve until the next organizational meeting of the Board and until their successors are elected and qualified.

The Executive Committee shall have the power and duties as may be defined from time to time by action of the Board of Trustees.

5.0602 Conduction of Business: The Board shall perform all acts and transact all business for or on behalf of the Association and manage the property and conduct the affairs, work and activities of the Association, except as may be otherwise provided in the Constitution or the Bylaws. All resolutions and recommendations of the House calling for the expenditure of funds passed by the House of Delegates shall be referred to the Executive Committee, which shall determine whether the expenditures are advisable and so inform the Board of Trustees. If the Board of Trustees decides that the expenditure(s) is inadvisable, the Board shall report, at its earliest convenience, to the House of Delegates the reasons for its action.

In no instance may the Executive Committee or the Board of Trustees fail to implement a mandate of the House of Delegates for reasons other than fiscal impossibility, budgetary restrictions or legal ramifications.

5.0603 THE JOURNAL and Other Publications: The Board shall provide for the publication of and determine the editorial policies, in accordance with the policy enunciated by the House of Delegates, of 1) THE JOURNAL of the State Association, 2) publications as it may deem expedient, 3) a publication for public information and dissemination and 4) all proceedings, transactions and memoirs.

The Board shall provide for and superintend all publications of the Association, and shall appoint an editor and an editorial board, as it deems necessary, and fix the amount of their salaries. The proceedings of the Board for the year shall be reported to the House of Delegates at the Annual Convention and be published in the issue of the THE JOURNAL which immediately precedes the Annual Convention. The Board shall appoint an editor or editors for all the Association's publications.

5.0604 Employ Executive: The Board shall employ the Executive Director, and fill any vacancy therein, who shall be the person to manage and direct the activities of the Association under the authority granted by the Board.

5.0605 Financial Reports: The Board shall have the accounts of the Association audited at least annually.

5.0606 County Visitation, Expenses and Reports: Each Trustee shall be organizer, peacemaker, and censor for the represented district. The Trustee shall visit the counties in the represented district at least once a year for the purpose of organizing component societies where none exist; for inquiring into the condition of the profession, and for improving and increasing the zeal of the county societies and their members. The Trustee shall make an annual report of official work and of the condition of the profession of each county in the represented district, the same to be published in the number of THE JOURNAL which is issued immediately preceding the Annual Convention. The House of Delegates may take such action, if any, as it deems appropriate upon such reports. The necessary expenses incurred by such Trustee in the line of the duties herein imposed may be allowed by the Board on a properly itemized statement, but this shall not be construed to include the Trustee's expense in attending the Annual Convention of the Association.

5.0607 Organizing County Societies: The Board shall make careful inquiry into the condition of the profession of each county in the state and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly relations among physicians of the

same locality and shall continue these efforts until every physician in every county of the state who can be made reputable has been brought under medical society influence. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies to be designated by hyphenating the names of two or more counties so as to distinguish them from district and other classes of societies; and these societies, when organized and chartered, shall be entitled to all the privileges and representation provided herein for county societies, until such counties may be organized separately.

5.0608 Scientific Work: The Board shall, through its officers and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall study and strive constantly to make each Annual Convention a stepping stone to future ones of higher interest. The Board shall encourage postgraduate and research work, as well as home study, and shall endeavor to have the results utilized and intelligently discussed in the county societies.

5.0609 Interest of the Profession: The Board shall, in connection with the House of Delegates, consider and advise as to the interests of the profession and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation and to diffuse popular information in relation thereto.

5.0610 Charters: The Board shall, upon application, provide and issue charters to county societies organized to conform to the spirit of this Constitution and Bylaws. The charters of county societies are defined in 11.01.

5.0611 Board of Censors: The Board shall be the Board of Censors of the Association. It shall consider all questions involving the rights and standings of members whether in relation to other members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the General or Section meetings shall be referred to the Board without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of component societies on which an appeal is taken from the decision of an individual Trustee, and its decision in all such matters shall be final.

5.0612 Duties of Alternate Trustee: The duties of the Alternate Trustee shall be: 1) To represent the Trustee District when the regularly elected Trustee is not in attendance. 2) To vote only when the Trustee is not in attendance either in the House of Delegates or in the Board meetings.

6.00 THE EXECUTIVE COMMITTEE

6.01 Composition: The Executive Committee, consisting of seven (7) voting members, constituted as provided in 5.0601 of these Bylaws, shall hold its first meeting immediately following the meeting of the Board held at the close of the last session of the House of Delegates at the Annual Convention, and shall organize by electing its Chairman. If the Executive Committee is unable to select a chairman within thirty (30) days after the final session of the House of Delegates, then a meeting of the Board of Trustees shall be called and a Chairman of the Executive Committee shall be selected by the Board of Trustees. Its Secretary shall be the Executive Director of the Association. It shall meet with the Executive Director on the call of the Chairman, or of any three (3) members, to plan and execute such work as may be necessary for the welfare of the Association and the conduct of the Executive Director's office and such other duties as the Board may specify. It shall have all jurisdiction with respect to medical defense activities of the Association, and shall be governed by the rules it adopts concerning that activity and by the Bylaws of this Association. It shall make decisions for the Association, including matters pertaining to THE JOURNAL during the intervals between the meetings of the board, and shall report its actions to the Board.

6.02 Budget Responsibility: It shall prepare a budget for the ensuing fiscal year; and all expenditures of the Association, except those otherwise provided for under the Constitution and Bylaws, shall be governed by the budget. No expense not provided for in the budget or otherwise under the Constitution and Bylaws shall be incurred by any officer, commission or committee. A committee, commission or officer may submit a request for funds to meet unusual expenses not included in the annual budget, and the Executive Committee shall have the power, by a two-thirds vote, to amend the budget to provide such funds. All resolutions and recommendations of the House of Delegates calling for the expenditure of funds passed by the House of Delegates shall be referred to the Executive Committee.

6.03 Investment Surplus Funds: The investment of all surplus funds of this Association shall be under the direct control and management of the Executive Committee subject to instructions in regard thereto which may be given by the Board at its option. The Executive Committee shall have the right and is encouraged to obtain advice and counsel of recognized

financial experts in regard to the discharge of the duties covered by this section of the Bylaws.

6.04 Student Loan: The Executive Committee shall have the authority to make loans to medical students in accordance with the terms and conditions under which funds are made available for that purpose. Rules and regulations adopted shall be subject to the approval of the Board. The Executive Director shall have the duty and responsibility of keeping minutes of all transactions and shall file a copy of such minutes, as well as a copy of all papers pertaining to any applications or loans, in the Headquarters Office of the Association.

6.05 Vacancy: A vacancy on the Executive Committee shall be filled by an election by the Trustees at the next regular meeting of the Board following the occurrence of such vacancy.

7.00 ORGANIZATION OF ACTIVITIES AND RESPONSIBILITIES

7.01 Creation of Committees and Commissions: The organization of the Association, the performance of which is not provided elsewhere in the Constitution and Bylaws, and is not carried on in the meetings of the Board or of the House of Delegates, or by special committees created by the Executive Committee, the Board or the House of Delegates, may be performed by the following committees and commissions.

7.0101 The Committees are as follows:

7.010101 The Future Planning Committee

7.010102 The Grievance Committee

7.010103 The Indiana Medical Education Fund Committee

7.010104 The Medico-Legal Committee

7.010105 The Negotiations Committee

7.0102 The Commissions are as follows:

7.010201 COMMISSION ON CONSTITUTION AND BYLAWS

7.010202 COMMISSION ON CONVENTION ARRANGEMENTS
This commission encompasses the field of:
Specialty Medicine

7.010203 COMMISSION ON LEGISLATION
This Commission encompasses the fields of:
State Legislation
Federal Legislation

7.010204 COMMISSION ON MEDICAL EDUCATION
This Commission encompasses the fields of:
Accreditation
Education Program

7.010205 COMMISSION ON MEDICAL SERVICES
This Commission encompasses the fields of:
Aging
Emergency Medical Services
Governmental Medical Service Programs
Medical Economics and Insurance
Public Health
Sports and Medicine
Voluntary Health Agencies

7.010206 COMMISSION ON PHYSICIAN IMPAIRMENT
This Commission encompasses the fields of:
Alcoholism
Drug Abuse
Neuropsychiatric Illness
Physical Infirmity

7.010207 COMMISSION ON PUBLIC RELATIONS
This Commission encompasses the fields of:
Interprofessional Relations
Public Information
Special Activities

7.02 Committee Structure: Except as otherwise stated in the Bylaws, a committee shall consist of not less than four (4) nor more than five (5) members, appointed from the general membership of the Association and shall be appointed annually by the President. The President shall also appoint the Chairman of each committee. The Committee Chairman shall appoint a Vice Chairman.

7.03 Commission Structure: The President may appoint one commission member of each six hundred (600) regular members of a trustee medical district or a major fraction thereof, but in any event, each district shall have one (1) member on each commission. The original appointees in each commission shall be divided into three (3) groups by lot. The first group shall serve three (3) years; the second, two (2) years; and the third, one (1) year. Thereafter, each incoming President shall appoint members of each commission to fill the vacancies resulting from the expiration of the terms of members, and such appointments shall be for three (3) years. The President shall also appoint members to fill the unexpired term where any vacancy occurs through death, resignation or otherwise. The President may appoint a maximum of three (3) At-Large members for a term of one (1) year, with the right to vote, to each commission. The President shall appoint the Chairman of each commission. The Commission Chairman shall appoint a Vice Chairman.

7.04 Removal of Members: The President shall have the power, with the approval of the Board, to remove any member of any committee or commission where such member, for any reason, does not or cannot work at attempting to perform the duties pertaining to membership on such committee or commission.

7.05 Terms: Unless otherwise provided in the Bylaws, no member of a commission shall serve on the same commission more than two (2) consecutive terms, but this shall not prevent the member from serving more than two (2) terms if the term of another member intervenes. The time given to the serving of an unexpired term shall not be considered in determining the period within which a member may serve consecutively.

7.06 Initial Meeting: Within sixty (60) days after the meeting of the Annual Convention, the President may call all commissions and committees into a joint meeting in order to give a statement of the duties and responsibilities of all committees and commissions, call special attention to any immediate problems confronting the Association, and assign such problems or parts thereof to appropriate committees and commissions. In these meetings, the commissions may provide for such subcommissions within the separate commissions as they may deem advisable. Each committee or commission shall have the right to call upon other committees, commissions or members of the profession for counsel and advice with respect to its work.

7.07 Coordination of Activities: Each committee and commission shall have the privilege and is encouraged to have joint meetings with any like committee or commission of the Auxiliary where such like committee or commission exists, for the purpose of coordinating activities to make them more effective in the medical service of the public and the intent of the Association.

7.08 Duties and Responsibilities: Each committee and commission shall have the duty and responsibility of keeping constantly and currently informed on the matters within the area of its special interest and activity of studying the conditions within that area with the purpose of finding possibilities for improvement; of finding the best solutions it can to the specific problems referred to it; of contributing in its area to the achievements of the Association as a whole in the protection and improvement of the health of the whole human family and finally of making all its efforts useful by passing on to the Association in the most effective manner possible the results of its studies and activities in its own area of special interest.

7.0801 The Future Planning Committee: The function of this committee shall be to study and anticipate future trends and to stimulate the various commissions in coordinated directions so there is a concord to the entire operation of Indiana State Medical Association. It is not contemplated that it be an operational committee.

7.0802 The Grievance Committee: The duties of this committee shall be to receive complaints, appeals or suggestions from physicians or lay persons concerning professional conduct. It shall attempt to find the facts regarding any matter brought to its attention, through procedures proper and appropriate to that end, and shall attempt to adjust differences between patients and physicians. It may, if it believes the facts justify such, cite a member of the Indiana State Medical Association to the Board of the Indiana State Medical Association. It shall, subject to the approval of the Board, draw up a set of rules and regulations governing its procedure and official action.

7.0803 The Indiana Medical Education Fund Committee: The purpose of this committee shall be to promote, develop and improve medical education in the Indiana University School of Medicine for the general benefit of the entire public by obtaining and using funds from private sources to accomplish that result. The funds collected will be deposited in a trust and at periodic intervals the committee shall make a distribution from the trust to be used by the Indiana University School of Medicine. The Indiana Medical Education Fund Committee shall consist of eight (8) persons, five (5) of whom shall be from the Indiana State Medical Association, appointed by the President thereof, all of whom shall be voting members. There shall be three (3) additional members of the committee who shall be ex-officio and non-voting and they shall be the Dean of the Indiana University School of Medicine, or the Dean's designee, the President of the Indiana State Medical Association, and the Executive Director of the Association who shall also act as Secretary of the Committee. The actions of this committee shall be certified to the Executive Committee. Each year a report of the Committee's activities, including a financial accounting report of the fund itself as administered by the trustee, shall be made part of the Executive Committee's annual report to the House of Delegates. The five (5) members shall serve staggered terms to insure continuity. Two (2) members shall be appointed to serve three (3) year terms, two (2) shall serve two (2) year terms, and one (1) shall serve a one (1) year term.

7.0804 The Medico-Legal Review Committee: The

Medico-Legal Review Committee shall consist of three (3) members selected from the Indiana State Medical Association whose duty it shall be to meet in joint session and work with a similar committee of three (3) members of the Indiana State Bar Association to be appointed by the Indiana State Bar Association. These three (3) members of the Indiana State Medical Association shall function as the medical representatives provided for in the Joint Inter-Professional Code of the Indiana State Medical Association and the Indiana State Bar Association to carry out the purposes of that code. Its duties shall be as stated in that Code in the form in effect from time to time as approved by the Association, and in all other medico-legal matters.

7.0805 Negotiations Committee: The Negotiations Committee shall consist of five (5) physician members appointed for terms of four (4) years each. The initial nomination shall be staggered to insure continuity. Two (2) members shall be appointed to four (4) year terms. One (1) member shall be appointed to a three (3) year term and one (1) member shall be appointed to a two (2) year term and one (1) member shall be appointed to a one (1) year term. The purpose of the Negotiations Committee is to become involved in proposals which affect the practice of medicine that include, but not limited to, negotiating with third parties and various government agencies at specific direction from the Board of Trustees.

7.0806 The Commission on Constitution and Bylaws: The Commission on Constitution and Bylaws shall keep in contact with the developments and changes in procedures in carrying on the work of this Association; shall suggest revisions necessary to keep the Constitution and Bylaws always in accord with the practices and procedures best adapted to the functioning of the Association; and shall keep the practices and procedures of the Association consistent with the provisions from time to time contained in the Constitution and Bylaws—to the end that all members of the profession, by reference to the Constitution and Bylaws, may be able to obtain accurate information regarding procedure and practice within the Association, and that hampering of such procedure and practice by obsolete provisions in the Constitution and Bylaws may be avoided. Amendments which are passed by the majority of the House become effective immediately and shall be submitted to the Commission on Constitution and Bylaws for implementation.

7.0807 The Commission on Convention Arrangements: The Commission on Convention Arrangements, with the advice and assistance of the Executive Director, shall provide suitable accommodations for meetings of the Association, including the House of Delegates, Board, and of their respective committees, the scientific and technical exhibits, and in conjunction with the Executive Director, shall have general charge of all the arrangements. Its Chairman shall report an outline of the arrangements to the Executive Director of the Association for publication in THE JOURNAL and in the official program, and shall make additional announcements during the session as occasion may require. The arrangements and the character of any and all technical exhibits must meet with the approval of the Executive Committee of the Association. It shall, with the approval of the Executive Committee, prepare a program for scientific work for the Annual Convention in which shall be included the respective programs for section meetings which shall be prepared through cooperation with the officers of the various sections, and it shall, with the approval of the Executive Committee, arrange for scientific exhibits as a part of the Annual Convention.

The general, scientific and sectional programs, and the financial arrangements to provide for them must be approved by the Executive Committee before being officially announced.

7.0808 The Commission on Legislation: The Commission on Legislation shall study all legislation, both state and national, and all local legislative trends and movements, as to their effect upon the practice of medicine and the protection of the public health; shall keep the profession informed at all times concerning the matters within its area of responsibility; shall conduct investigations of legislative proposals; and shall maintain liaison with members of the State Legislature and the United States Congress, and with the legislative activities of the American Medical Association. It shall strive to implement and make effective the legislative proposals adopted by the Association.

7.0809 The Commission on Medical Education: The Commission on Medical Education shall maintain liaison with, and try to be of assistance to, medical schools and the licensing board, and shall keep in contact with, and endeavor to assist in improving undergraduate education, postgraduate education, intern training, resident training, preceptor instruction, and public school health education.

7.0810 The Commission on Medical Services: The Commission on Medical Services shall concern itself and assume special responsibility in obtaining information and giving counsel and advice to the Association with respect to all matters in which medical service comes into contact with any existing or proposed functions of government, including civil defense, rehabilitation of persons handicapped by abnormality or disease, medical service in welfare departments, maternal and child health programs sponsored through governmental agencies, medical care of military personnel, plans and programs for medical care of veterans, medical care for dependents of those in uniformed services of the government, plans and programs of the government for medical care now existing or which may hereafter be adopted by any special group, government programs for elimination of venereal disease and other communicable diseases, and all programs and plans for medical care to be provided through municipal, state or federal governments.

7.0811 The Commission on Physician Impairment: The Commission on Physician Impairment shall develop a program to recognize, treat and rehabilitate physicians who are impaired by neuropsychiatric illness, physical infirmities or alcohol and other substance dependence. The Commission will encourage informal and formal referral of all impaired physicians through county medical society screening committees.

7.0812 The Commission on Public Relations: The Commission on Public Relations shall collect and organize for dissemination to the public all matters of public interest within the field of medicine, including the activities of other commissions in which the public interest would be involved, and including also the achievements in the advancement of medicine which would be of interest to the public; shall disseminate all such information through the use of whatever media the commission may find adaptable to that purpose so that such information may be brought to the public in the most effective and convincing manner; and shall develop and maintain the relations of the medical profession with the public in such a way as to give the lay public a better knowledge and understanding of the aims, objectives and value of the profession.

7.09 Ex-Officio Members: The President, President-Elect, Executive Director, Speaker, Vice-Speaker of the House and the Chairman of the Board of Trustees shall be ex-officio members of all the foregoing committees and commissions without voting rights where their inclusion on the committee or commission is not otherwise provided for in these Bylaws.

7.10 Travel Reimbursement: ISMA will reimburse commission and committee members at the rate currently allowed by the IRS for mileage driven to attend ISMA commission and committee meetings. This does not include any expense of attending same during the annual convention.

8.00 RECIPROCITY OF MEMBERSHIP WITH OTHER STATE SOCIETIES

In order to broaden professional fellowship, this Association is ready to arrange with other State Medical Associations for an interchange of certificates of membership so that members moving from one state to another may avoid the formality of re-election.

9.00 REFERENDUM

9.01 General and Special Meetings: Providing a quorum is present, (150 members) as per 3.0403 of these Bylaws, a general or special meeting of the Association may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered the House of Delegates shall submit such question to the members of the Association, who may by mail or in person, and if the members voting shall comprise a majority of all members of the Association, a majority vote shall determine the questions and be binding on the House of Delegates.

9.02 General Referendum: The House of Delegates may, by a two-thirds vote of its own members, submit any question before it to a general referendum, as provided in the preceding paragraph, and the result shall be binding on the House of Delegates.

10.00 THE SEAL

The Association shall have a common Seal, with power to break, change or renew that same at pleasure.

11.00 COUNTY SOCIETIES

11.01 Charters: All county societies now in affiliation with this Association or those which may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and Bylaws, or those of the American Medical Association, shall on application receive a charter from and become a component part of this Association. The acceptance or retention of this charter shall be regarded as a pledge on the part of said component society to conduct itself in harmony with the letter and spirit of this Constitution and

Bylaws and other rules and resolutions of this Association. Charters shall be issued only upon approval of the Board and shall be signed by the President and Executive Director of this Association. The Board shall have the authority to revoke the charter of any component society whose actions are in conflict with the letter and spirit of this Constitution and Bylaws or those of the AMA.

11.0101 Conflicting Societies: With the exception of the Component Student Medical Society, only one component medical society shall be chartered in any county. Where more than one county society exists, friendly overtures and concessions shall be made, with the aid of the Trustee for the district if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Board, which shall decide what action shall be taken.

11.02 Membership Qualifications: Each county society shall be judge of the qualifications of its own members, but, as such societies are the only portals to this Association, every reputable and legally registered physician who holds a degree of Doctor of Medicine, a degree of Bachelor of Medicine or who holds a valid, unrestricted license to practice medicine and surgery shall be eligible for membership. Provided, however, that each county society may deny membership in such society for infraction or violation of any law relating to the practice of medicine or of the Constitution and Bylaws of such society, the Constitution and Bylaws of the Indiana State Medical Association, the Constitution and Bylaws of the American Medical Association, or for a violation of the Principles of Medical Ethics of the Indiana State Medical Association; and may, after due notice and hearing, censor, suspend or expel any member for any such infraction. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every physician in the county to become a member.

11.03 Right of Appeal: Physicians who may feel aggrieved by the action of the society of their county in refusing them membership, or in suspending or expelling them, shall have the right to appeal to the Board, and its decision shall be final.

In hearing appeals the Board may admit oral or written evidence as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Trustees in district and county work, efforts at conciliation and compromise shall precede all such hearings.

11.04 Membership Transfer: When members in good standing in a component society move to another county in this state, their names shall be transferred without cost to the roster of the county society into whose jurisdiction they move, provided the transfer is approved by majority vote of the membership of said society to which the transfer is proposed. Physicians who have the major part of their practice in a county other than the county in which they reside may hold membership in the county society of their residence or in the county society of the county in which they have the major part of their practice. However, physicians shall not hold active membership in more than one county society at the same time.

11.05 Direction of Profession: Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and professional status of every physician in the county; and systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified and honorable physician in the county.

11.06 Selection of Delegates: At the annual business meeting for election of officers, in advance of the Annual Convention of this Association, each county society shall elect Delegates and Alternates to represent it in the House of Delegates of this Association, and the Secretary of the society shall send a list of such Delegates and Alternates to the Executive Director of this Association annually on or before February 1.

11.07 Secretarial Duties: The Secretary of each component society shall keep a roster of all its members and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary. In keeping such a roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making the required annual report the Secretary shall be certain to account for every physician who has lived in the county during the year.

The Secretary of each component society shall prepare and send to the Trustee of the Secretary's district a quarterly report briefly stating the activities of the Secretary's county society including meetings, programs, changes in officers and personnel or membership. A copy of this quarterly report to the Trustee shall also be sent to the Executive Director of the Indiana State Medical Association. The Indiana State Medical Association shall supply each County Secretary a form for these reports.

11.08 Fiscal Year and Dues: The fiscal year of the Association shall be from October 1 to September 30

of the succeeding year. The dues shall be collected by the calendar year and payable in advance. Unless collected by the Indiana State Medical Association, the Secretary of each component society shall forward the dues for the society to the Executive Director of this Association and shall furnish the Indiana State Medical Association headquarters with a roster of officers, members, and a listing of non-affiliated physicians of the county, on or before January 1 of each year, and shall promptly report thereafter the names of any new members elected to membership in the society, and promptly forward to the Executive Director of this Association the dues for such members. The dues and the rights and benefits of all members shall be as provided in 1.00 et seq. of the Bylaws.

Provided, however, that physicians elected to their first membership in this Association during the first six months of any year shall pay the regular annual dues for that year; and those elected to their first membership after July 1 of any one year shall pay fifty percent of the annual dues for the remainder of that year. Interns and residents shall pay annual dues during their term of service in the hospital at a reduced rate established by the Board of Trustees.

In the event the county society relieves a member from the payment of dues on account of financial hardship, the Secretary of the county medical society shall recommend in writing to the Executive Director of ISMA the relief from Indiana State Medical Association dues of said member of the society, showing why such recommendation should be granted. The Executive Director shall have the power to relieve said member of dues.

11.09 Failure to Pay Dues: Any county society which fails to pay dues or make the report required by January 15th of each year shall be delinquent. Any county society which fails to pay dues or make the report required by April 30 shall be held suspended, and none of its members or delegates shall be permitted to receive any of the publications of the Association or participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

11.10 Secretary Direction: Each county society shall be held responsible for the faithfulness in the performance of duty on the part of its Secretary in making reports and remitting dues to the Association.

11.11 Constitution and Bylaws: Each component society shall have its own Constitution and Bylaws, which shall not be in conflict with the Constitution and Bylaws either of this Association or of the American Medical Association. An up-to-date copy thereof shall be filed with the Executive Director of the Indiana State Medical Association not later than May 1 of each calendar year, or where such copy is so on file and no change has been made, then it shall be sufficient to file a certificate to that effect with the Executive Director.

12.00 TRUSTEE DISTRICT MEDICAL SOCIETIES

12.01 Composition: A Trustee District Medical Society, hereinafter called the district society, shall be a society whose members consist of the members of the county medical societies in the counties which constitute the Trustee district.

12.02 Number of Districts: The state shall be divided into thirteen (13) Trustee districts with the boundary lines and number of each district to be as follows:

First District—Posey, Vanderburgh, Warrick, Spencer, Dubois, Perry, Pike and Gibson Counties

Second District—Knox, Daviess, Martin, Monroe, Owen, Greene and Sullivan Counties.

Third District—Crawford, Harrison, Floyd, Clark, Scott, Washington, Orange and Lawrence Counties.

Fourth District—Jackson, Jennings, Jefferson, Switzerland, Ohio, Dearborn, Ripley, Decatur, Bartholomew and Brown Counties.

Fifth District—Clay, Vigo, Vermillion, Parke and Putnam Counties.

Sixth District—Shelby, Rush, Fayette, Franklin, Union, Wayne, Henry and Hancock Counties.

Seventh District—Morgan, Johnson, Marion and Hendricks Counties.

Eighth District—Madison, Delaware, Randolph, Jay and Blackford Counties.

Ninth District—Fountain, Montgomery, Boone, Hamilton, Tipton, Clinton, Tippecanoe, Warren, Benton, White, Newton and Jasper Counties.

Tenth District—Porter and Lake Counties.

Eleventh District—Carroll, Howard, Grant, Wabash, Miami, and Cass Counties.

Twelfth District—Wells, Adams, Whitley, Allen, Noble, Huntington, DeKalb, LaGrange and Steuben Counties.

Thirteenth District—Pulaski, Fulton, Kosciusko, Marshall, Starke, LaPorte, St. Joseph and Elkhart Counties.

12.03 Constitution and Bylaws: Each district society shall adopt a Constitution and Bylaws, which shall not conflict with the Constitution and Bylaws of the Indiana State Medical Association, or those of the American Medical Association, and only one district society shall exist within any one Trustee district. The authorized district society in each Trustee district shall receive a charter from the Indiana State Medical Association, and the Secretary of the district society shall have custody of the charter.

12.04 Officers: Each district society shall organize by electing a President, a Secretary and a Treasurer

and Trustee(s) and Alternate Trustee(s) as the current Trustee(s) term and Alternate Trustee(s) term for the district expires, and such others as may be provided for in its Constitution and Bylaws. The office of Secretary and Treasurer may be held by the same physician. The Trustee(s) shall continue to have the same duties and terms as are set forth in the Constitution and Bylaws of this Association.

12.05 Trustee Allocation: Each district society shall have one (1) Trustee and one (1) Alternate Trustee for each six hundred (600) regular members or major fraction thereof but in any event each district shall have one (1) Trustee and one (1) Alternate Trustee. The term of each trusteeship newly created by the numerical growth of a district shall begin at the organization meeting of the Board immediately following the adjournment of the final session of the House of Delegates at the next Annual Convention, in accordance with 5.06.

12.06 Dues: The dues of the district society, in an amount fixed by the district society to meet the society needs, shall be collected by the secretaries of the component county societies, or by the Indiana State Medical Association and delivered to the Treasurer of the district society. The Secretary of each district society shall report to the office of the Indiana State Medical Association the names and addresses of the members of the district society, together with a copy of the minutes of each meeting of the district society.

12.07 Meetings: Each district society shall meet at least once each year at a time and place to be fixed by the district society. On or before January 1 of each year each district society shall notify the headquarters of the Indiana State Medical Association of the time and place of the annual district meeting for that year; but if no such notification has been received in the headquarters on or before the January meeting of the Board, the Trustee shall fix the time and place of the district meeting, and notice of such meeting shall be sent to the members of the county medical societies in such district.

12.08 Notification to Headquarters: Whenever a district society is to elect a Trustee and/or Alternate, the headquarters office of the Indiana State Medical Association shall so notify the individual members of such district society not later than six (6) weeks in advance of said election date. The district society shall send to the headquarters office of the Indiana State Medical Association a copy of its program showing the time and place of its meetings, early enough that the headquarters office may notify all members within the district of the meeting at least thirty (30) days prior to the date thereof.

12.09 Recommendation of Nominees to the Board of Directors of Mutual Medical Insurance, Inc.: Each district medical society may recommend nominees from its membership (a physician subscriber to Mutual Medical Insurance, Inc.) to serve on the Board of Directors of MMI. The physicians recommended will be submitted for nomination at the annual meeting of Mutual Medical Insurance, Inc. The ISMA Board of Trustees may recommend additional nominees.

13.00 MEDICAL DEFENSE—MEDICAL DEFENSE ADMINISTRATION, AUTHORITY AND PROCEDURES

13.01 Administration: The administration of this entire section shall be entrusted to the ISMA Executive Committee which shall have full authority to develop rules and procedures, and make reports as it may deem appropriate. Any matter not specifically addressed in this section shall be left to the discretion of the Executive Committee.

13.02 Policy and Purpose: It shall be the policy of ISMA that this section of the Bylaws shall only be used as authority to involve ISMA in medical defense and/or countersuit litigation that is of such a nature that the issues presented are of significant concern and impact on the practice of medicine as a whole. In no event shall this section be construed as authority or obligation for ISMA to involve itself in litigation that is primarily a matter of individual concern. This section shall not be construed as authority for ISMA to hire attorneys and pay expenses on behalf of an individual member. However, the Executive Committee is empowered to expend funds for attorneys and other experts who may be required in the pursuit of litigation that may have an impact on the practice of medicine as a whole.

13.03 Eligibility—Request for ISMA Involvement-Procedure: Before a request for ISMA involvement will be considered by the ISMA Executive Committee the following conditions should be met:

(a) The physician making the request should be a member in good standing of ISMA.

(b) A written request for ISMA involvement in medical defense and/or countersuit litigation should be sent to the Executive Committee detailing the facts of the case as well as why the issues involved are of such a nature that they impact on the practice of medicine as a whole.

(c) A written statement of support from the physician's county medical society should accompany the request for ISMA involvement.

14.00 MISCELLANEOUS—DIVISION OF FEES

This Association does not countenance or tolerate fee-splitting, division of fees, or commission paying di-

rectly or indirectly, and any member found guilty shall be expelled from membership.

15.00 PARLIAMENTARY PROCEDURE

The deliberations of this Association shall be governed by parliamentary usage as prescribed in the current edition of Sturgis Standard Code of Parliamentary Procedure, when not in conflict with this Constitution and Bylaws.

16.00 AMENDMENTS

16.01 These Bylaws may be amended by resolution, as in 3.020701b, which shall be treated as any other proposed amendment, at any meeting of the House of Delegates by a majority vote of all the Delegates present. Amendments to the Bylaws must be submitted to the Association forty-five (45) days in advance of the meeting. These amendments must be presented to the Commission on Constitution and Bylaws prior to the meeting and are eligible for passage after lying on the table for one day.

16.02 Other: Any other Bylaw amendment presented to the House of Delegates will not be eligible for consideration by the House of Delegates unless two-thirds majority of the first session of the House of Delegates votes to consider the amendment as presented.

16.03 Amendment Implementation: Amendments which are passed by the majority of the House become effective immediately and shall be submitted to the Commission on Constitution and Bylaws for implementation.

17.00 MEDICAL ETHICS

The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

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AMERICAN MEDICAL ASSOCIATION Principles of MEDICAL ETHICS

Preamble:

The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility not only to patients, but also to society, to other health professionals, and to self. The following Principles adopted by the American Medical Association are not laws, but standards of conduct which define the essentials of honorable behavior for the physician.

I. A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity.

II. A physician shall deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception.

III. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient.

IV. A physician shall respect the rights of patients, of colleagues, and of other health professionals, and shall safeguard patient confidences within the constraints of the law.

V. A physician shall continue to study, apply and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.

VI. A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical services.

VII. A physician shall recognize a responsibility to participate in activities contributing to an improved community.



THE INDIANA MEDICAL FOUNDATION, INC.

3935 North Meridian Street
Indianapolis 46208

A foundation for charitable, educational, and scientific purposes, organized by the ISMA as an endowment fund to support the educational mission of the Association and THE JOURNAL.

Bequests, legacies, devises, transfers or gifts to the Foundation or for its use are deductible for federal estate and gift tax purposes, in accordance with the Internal Revenue Code.

The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

"for religious, charitable, scientific, literary or educational purposes"

THE INDIANA STATE MEDICAL ASSOCIATION

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OBITUARIES

Sam W. Litzenberger, M.D.

Dr. Litzenberger, 79, a retired urologist who had practiced in Middletown and, until 1967, in Anderson, died Oct. 1 in Gloucester, Mass., where he had lived in recent years.

He was a 1927 graduate of Indiana University School of Medicine and was a U.S. Navy veteran of World War II.

Dr. Litzenberger was a fellow of the American College of Surgeons and a member of the American Urological Association. He was certified by the American Board of Urology and was a member of the ISMA Fifty Year Club.

Paul W. Sparks, M.D.

Dr. Sparks, 73, a retired Winchester surgeon and gynecologist, died Oct. 9 at his home.

He received his M.D. degree in 1938 from the University of Arkansas School of Medicine.

Dr. Sparks was active in the Randolph County Medical Society and was a former alternate trustee of ISMA's Eighth District. He was a fellow of the American College of Surgeons and a member of the American Society of Abdominal Surgeons.

John E. Miklozek, M.D.

Dr. Miklozek, 70, a Terre Haute physician, died Oct. 12 at Community Hospital, Indianapolis.

He was a 1941 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Miklozek, who was awarded the Silver Star during his wartime service, was a graduate of Indiana State University, where he had been a star athlete. He played professional basketball for a short time with an Indianapolis team before the NBA was formed.

Marvin E. Hawes, M.D.

Dr. Hawes, 76, a Columbus physician, died June 29 at Bartholomew County Hospital.

He was a 1931 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Hawes became a member of the ISMA Fifty Year Club in 1981.

Eli Goodman, M.D.



Dr. Goodman, 70, a Charlestown physician who served as ISMA president from 1977-78, died Nov. 30 at his home in Charlestown.

He was a 1938 graduate of Tufts University School of Medicine, Boston, and was a Army veteran of World War II.

Dr. Goodman was a major force behind construction of the North Clark Community Hospital, Charlestown, and served as its chief of staff from 1976 until January 1979. Over the years he was active in a variety of community and ISMA activities, to include a term as chairman of the Board of Trustees. He was president of the Third District Medical Society at the time of his death and was a former president of the Clark County Medical Society. His professional memberships included the American Academy of Family Physicians, American Physicians Fellowship, and the Association of Military Surgeons of the U.S.

Hugh A. Stallings, M.D.

Dr. Stallings, 53, an Evansville obstetrician and gynecologist, died Oct. 14 at his home.

He was a 1954 graduate of Indiana University School of Medicine.

Dr. Stallings was board-certified and was a fellow of the American College of Obstetrics and Gynecology.

Frank W. Messer, M.D.

Dr. Messer, 84, a Kendallville physician and surgeon who had retired in September, died Oct. 15 at McCray Memorial Hospital.

He earned his M.D. degree from Ohio State University in 1926. He was an Army veteran of World War I.

Dr. Messer, who had practiced in Kendallville 53 years, was secretary of the Noble County Medical Society from 1959-61. He was enrolled in the ISMA Fifty Year Club in 1976.

Hunter F. Kennedy, M.D.

Dr. Kennedy, 72, a retired Indianapolis physician, died Oct. 16 at St. Vincent Hospital, Indianapolis.

He was a 1937 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Kennedy, a former ISMA delegate representing the Marion County Medical Society, had been a physician with the Social Security Administration in addition to his private practice.

F. Minton Hartz, M.D.

Dr. Hartz, 77, medical director at St. Mary's Medical Center, Evansville, died Oct. 18 at the center.

He earned his M.D. degree in 1927 from the University of Michigan. He was an Army veteran of World War II.

Dr. Hartz, a specialist in industrial medicine and surgery, had served at St. Mary's as medical director since his retirement from private practice in 1971. He was the hospital's chief of staff from 1955-59. He was enrolled in ISMA's Fifty Year Club in 1977.

Marcel S. Brown, M.D.

Dr. Brown, 76, a retired Spencer physician, died Oct. 31 at Montgomery County Hospital, Crawfordsville.

He was a 1930 graduate of Indiana University School of Medicine and was an Army-Air Force veteran of World War II.

Dr. Brown, who retired in 1981, practiced in Spencer 40 years. At one time he was the only practicing physician in Owen County. He was a member of the ISMA Fifty Year Club.

Maurice J. Thornton, M.D.

Dr. Thornton, 84, a retired South Bend radiologist, died Oct. 28.

He earned his M.D. degree in 1925 from the University of Illinois. He retired from practice in 1965.

Dr. Thornton was a former director of the radiology department at St. Joseph's Medical Center, South Bend. He was certified by the American Board of Radiology and was a fellow of the American College of Radiology. He was also a member of the ISMA Fifty Year Club.

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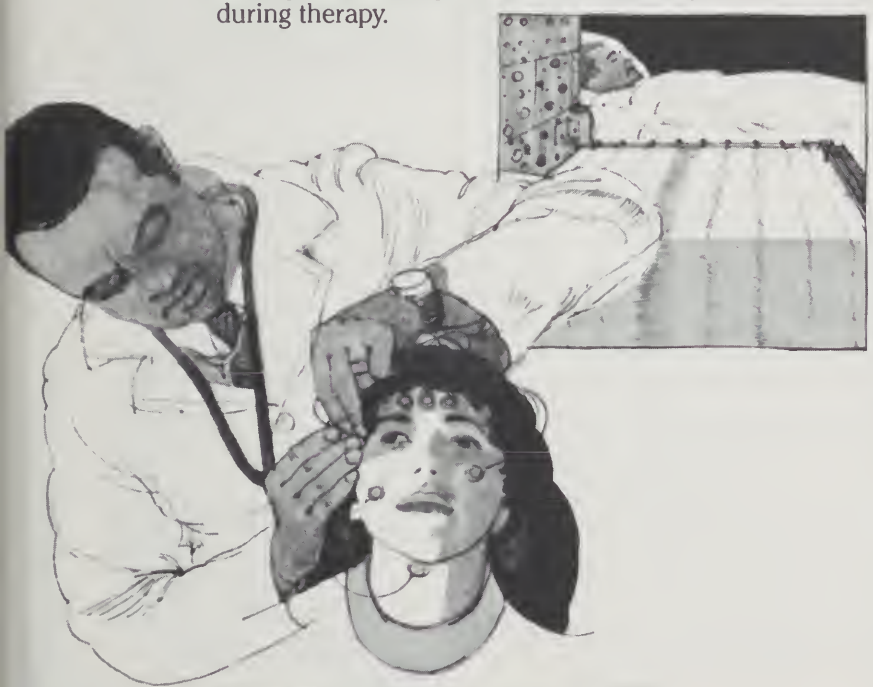
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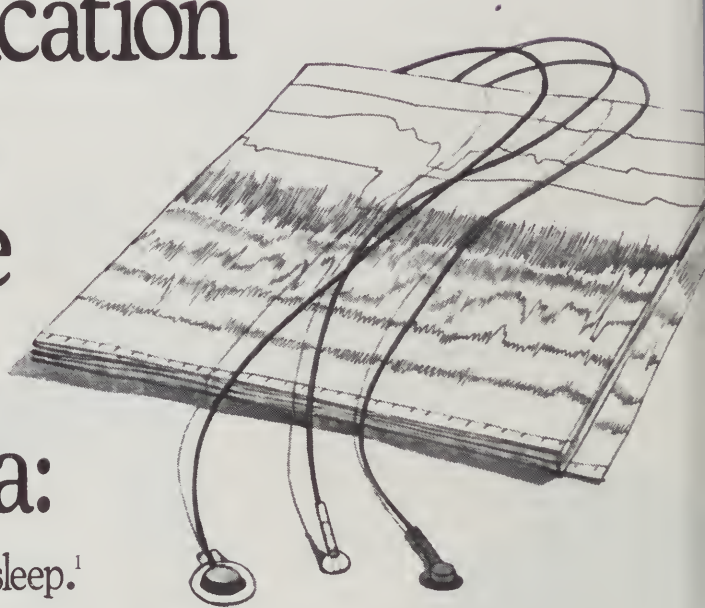
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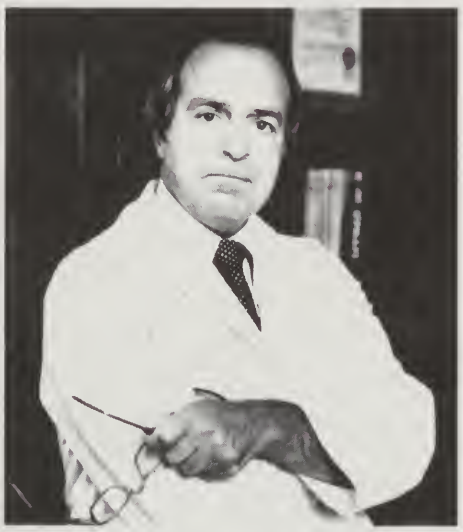
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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis



DR. JOHN EVANS (1814-1897), above, was founder of Indiana's State Hospital System and Territorial Governor of Colorado. Mt. Evans, right, "Highway to the Clouds," is the highest paved road in North America—14,260 feet (also see front cover). 62 miles west of Denver, Colo.

This page illustrates three Indiana physicians and the three mountains named in their honor.





DR. DAVID STARR JORDAN (1851-1931), above, a naturalist, educator and philosopher, was president of Indiana University, 1885-1891. Mt. Jordan, right, is the center peak of the North Palisade, King's River Canyon, Calif.





DR. FRANK WYNN (1860-1922), above, physician, educator and naturalist, was the principal catalyst in unifying Indiana's various proprietary schools into the I.U. School of Medicine. Mt. Wynn, right, is located in Glacier National Park, Montana.



Increased Competition Between Physicians & Hospitals: Sign of the Times

A Message from the Executive Director



DONALD F. FOY
Executive Director
Indiana State Medical Association

ONE OF THE MOST significant national trends today is the extension by hospitals outward into communities in a battle for patient dollars. This has resulted in competition, confusion, and of course, the proliferation of satellite clinics administered by hospitals, free-standing, for-profit clinics (sometimes referred to as "Doc-in-the-Box"), and surgicenters.

Currently, the big proprietary firms own or manage 12% of the nation's hospitals, and this percentage is expected to double in the next 10 years. These chains are also expected to diversify into office care. Humana Inc., for example, plans to spend $43 million during 1983 to build 66 so-called "physician centers" in 15 U.S. cities. Some 600 are planned over the next five years.

Part of today's controversy is caused by the fact that no uniformly accepted definition exists that can be applied to the various hospital satellite facilities, convenience clinics, physicians' offices, and multi-hospital systems' approaches to ambulatory centers offering off-hour care at costs lower than hospital emergency rooms. Hospitals experiencing decreased revenues view physicians' offices that offer no-appointment, off-hour ambulatory services as a competition that cuts down on potential revenue from emergency departments and outpatient centers.

Physicians, on the other hand, think that hospitals have an unfair advantage in using tax-exempt dollars to build satellite ambulatory facilities to compete with physicians in private and group practice. When the for-profit hospital chains come into an area to set up additional ambulatory centers, both hospitals and physicians feel threatened. The bottom line to all of this is competition with a big "C."

A recent survey conducted by the AMA indicates that physicians are becoming increasingly aware of competition. For the second consecutive year, physicians reported major increases in services being offered by hospital outpatient facilities. The number of new surgicenters is also up substantially throughout the country.

Although there are antitrust constraints as to what can be done, they do not answer the concerns being expressed by physicians. The AMA House of Delegates has instructed the AMA Board of Trustees to continue to study the issue and tell physicians how to respond to what most regard as increased and perhaps unfair competition.

The ISMA began studying the issue as a result of Resolution 81-30 (Free-Standing Emergency Centers), adopted by the House of Delegates in 1981. An ad hoc committee appointed by the Board of Trustees has met several times but has not reached any definitive conclusions.

It is interesting to note that a new national organization, The National Association of Free-Standing Emergency Centers, has emerged recently which is headquartered in Dallas.

The State's Emergency Medical Services Commission has looked at the issue and taken no position.

The use of the word "emergency" has done as much as anything to add to the confusion. Only Rhode Island has adopted a comprehensive regulatory policy regarding emergicenters. In Rhode Island, only a licensed emergicenter may use the terms Emergency Room, Urgent Treatment Center, Accident Room, Critical Care Facility, etc. On the other hand, the AMA does not believe specific criteria should be mandated as a prerequisite for using the word "Emergency" in a title or description.

Another topic of current debate is whether emergicenters should be required to be open around the clock. The AMA has said that these facilities should be open 24 hours a day, seven days a week; but AMA's Guidelines *do not apply* to convenience or access clin-

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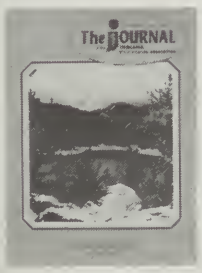
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ABOUT THE COVER

Scenic picture of Mt. Evans and Echo Lake in Colorado. The mountain, which features the highest paved road in North America (14,260 feet), is named for Dr. John Evans, an Indiana physician who served as Governor of Colorado Territory during the Civil War. (Photo courtesy of the Denver & Colorado Convention & Visitors Bureau)

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Medical Review Panels

Editorial

ALL MEDICAL MALPRACTICE suits in Indiana since July 1, 1975 have been and are governed by a law titled "Medical Malpractice." The statute was enacted in 1975 and has been amended on several occasions.

The Malpractice Law

The act provides the following stipulations and terms:

- Reasonable damages may be requested—no dollar amount may be stated.
- Health care providers are qualified for coverage under the act by filing proof of financial responsibility and paying the surcharge. Financial responsibility is proved by filing a cash or surety bond or by an insurance policy.
- Recovery is limited to $500,000. A health care provider's liability is limited to $100,000.
- A "Patient's Compensation Fund" is created by an annual surcharge of 25% of the premium charge.
- Financial responsibility must be maintained up to $100,000 per occurrence and $300,000 in the annual aggregate.
- If insurance coverage is exhausted in any one year, any sums payable thereafter will be paid from the Patient's Compensation Fund.
- Suit must be filed within two years after alleged act of malpractice, omission or neglect except a child under full six years of age shall have until his eighth birthday.

The Medical Review Panel

A medical review panel is provided to review each proposed malpractice complaint.

The law states that no action against a health care provider may be commenced in any court before the claimant's proposed complaint has been presented to a medical review panel and an opinion has been rendered by the panel.

A medical review panel consists of one attorney, who is selected by agreement of both parties to the suit, and three health care providers. Each party selects one provider panelist. The two panelists select the third.

If there is only one party defendant, other than a hospital, two of the panelists selected shall be from the same class of health care provider as the defendant.

The attorney acts as chairman but has no vote. All health care providers, whether in teaching profession or not, who hold a license to practice shall be available for selection.

Each panelist shall serve unless the parties excuse him by agreement. Panelists may be excused for good cause by serving an affidavit to the panel chairman to show unreasonable burden or undue hardship.

Panel opinion is to be submitted within 180 days after the last member is selected.

A party, attorney or panelist who fails to act as required without good cause is subject to mandate or appropriate sanctions by the court of jurisdiction.

The opinion of the medical review panel may be admitted in evidence, in any action. Panelists may be called to testify and have absolute immunity from civil liability.

The medical review panel receives evidence in written form only—medical charts, x-rays, laboratory tests, excerpts of treatises, depositions and other forms allowable by the panel.

The panel chairman advises the panel on legal questions involved in the proceeding and prepares the opinion of the panel.

The panel opinion may state that: (a) Evidence supports complaint, (b) evidence does not support complaint, (c) a material issue of fact exists, or (d) conduct complained of was or was not a factor in the resultant damages (if so, was there disability—extent and duration—and any permanent impairment and per cent of impairment).

The Results

The malpractice law has functioned satisfactorily. It has successfully withstood several changes of constitutionality. The various and sundry provisions of the law have functioned both individually and jointly to assure justifiable verdicts and to assure recompense to those who have suffered injury.

Each of the law's provisions depends on some or all of the other provisions to secure justifiable trials and to avoid unjustifiable actions. The formation and function of medical review panels is one of the most important parts of the law.

No matter how well the other provisions are administered, the medical review panel renders a service in each case which is indispensable. Panel review contributes an element without which a true and faithful decision cannot be reached.

Examination of the evidence produced by both parties is accomplished by three panelists in a non-adversary setting. The defendant obtains an official

CONTINUED ON PAGE 106



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Where MAC Belongs: Nowhere

Guest Editorial

EVER SINCE the term MAC (Maximum Allowable Cost) was added to the pharmacy's lexicon, we have opposed it. We still do, and we will as long as the profession of pharmacy has anything to do with it, either by choice or by fiat.

In December 1973, having failed to gain a widespread acceptance of its initial attempts at centralized procurement of drugs, the federal bureaucrats resurrected the MAC program from the "1969 Reports of the Task Force on Prescription Drugs." They said it plain and simple: The MAC program is designed to lower the costs of prescription drugs to the federal government. No more, no less.

As expected, PMA opposed it, NARD was against it, NACDS failed to support it, NPC abhorred it, and NWDA disapproved it. But, you guessed it right, American Pharmaceutical Association (APhA) supported it—and did so very vehemently.

The other day we received the Aug. 18, 1982 issue of the *Apharmacy Weekly*. You are right again—the APhA Board of Trustees have finally come around and now they have said: "Reviewed and affirmed the Association's opposition to seek termination of MAC program, and approved a filing with HCFA urging the reconsideration of the latest group of proposed MACs."

We could chalk this one up under the "W" column, but we would rather not do so. We could also say, "I told you so, nine years ago—what were you doing then?" But as far as we are concerned, bygones are bygones.

We are not sure what changed APhA's mind, but we know one thing for sure—it must be a bitter pill to swallow.

In 1975, we made the following statement regarding MAC in our March issue of "Action in Pharmacy": "A program that is going to be costly to administer, interfere with patient care, and decrease both the quality and efficiency of the pharmaceutical delivery system has been proposed in Washington by the Department of Health, Education and Welfare. Since this program, as written, is detrimental to pharmacists, it is of paramount importance that we continue to stay on top of this issue."

We don't want to dig into the sad history of APhA's single-minded devotion to the MAC concept for the last six to eight years. But now they have recognized the problems of the MAC program and want it terminated. Welcome home, APhA; we needed your support then; we need it now. MAC was bad then; it is harmful now!

Let's all work to get the MAC limits out of the pharmacy reimbursement system. Study after study reveals that pharmacists are losing money because of the MAC program. If this economic hemorrhage continues, it will sap our strength and vitality. It is time we put MAC where it belongs—nowhere.

Reprinted by permission from "Action in Pharmacy" newsletter, October 1982.

Medical Review Panels

CONTINUED FROM PAGE 104

and unbiased judgment on the elements in the case. When and if the case comes to trial, the panel opinion may be introduced into evidence. The entire procedure aids in preserving true and substantial evidence and avoids verdicts based on emotion.

The 'Obligation'

All licensed practitioners should be on call and available for courteous and professional duty on review panels. The financial compensation is not magnificent, but the emotional and fellowship dividends more than make up the difference.

Teddy Roosevelt is credited with the statement, "Every professional person owes some of his or her time and money to the advancement of the profession." Here is a golden opportunity for an investment in the good of the medical profession.

A Message from the Executive Director

CONTINUED FROM PAGE 102

ics that are the equivalent of physicians' offices. Therefore, one can assume that AMA's Guidelines apply principally to facilities that are hospital-affiliated or administered. The National Association of Free-Standing Emergency Centers, in its "Standards," requires only that a facility must have regular, continuous, widely publicized hours of operation with a minimum of 70 hours a week. They encourage centers to be open 12 hours a day, seven days a week.

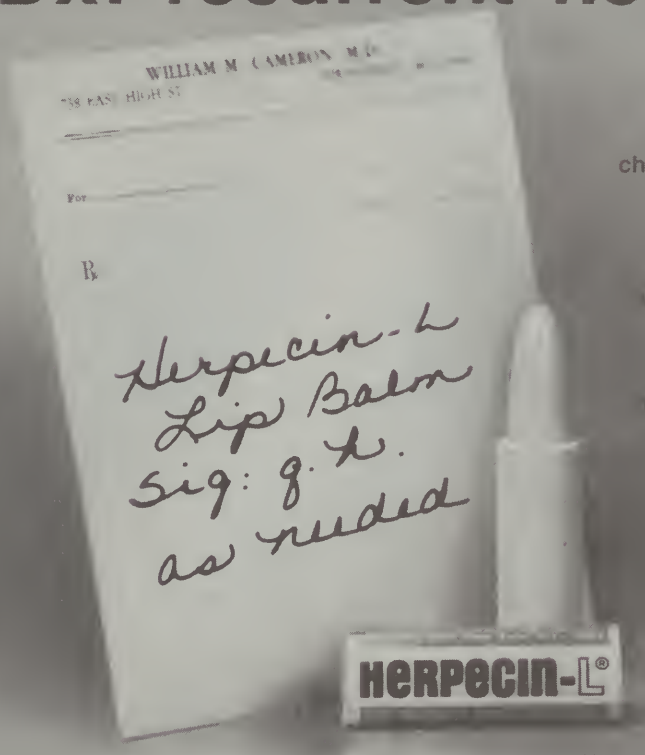
Reimbursement is another vexing issue. Hospital sponsorship (covered under a hospital's license) of a satellite emergency care center usually makes it eligible for Medicare, Part A reimbursement which includes a facility charge. The independent centers are generally regarded as the equivalent of physicians' offices and are treated as such for purposes of licensure, certificate of need (determination of need), and third-party reimbursements. The health insurance industry has not yet adopted a uniform position on whether free-standing emergency care centers may be reimbursed a facility charge as an institutional service to cover overhead expenses. Also, cost comparative data has not been readily available.

Although the AMA and the new National Association of Free-Standing Emergency Centers have developed different voluntary standards or guidelines, both would probably agree that government regulations are unnecessary and undesirable.

Proponents of emergency care centers contend they can offer services for much less cost than hospital emergency rooms. They also point out that 80% of patient visits to hospital ERs are for non-emergency conditions.

In Indiana, typical free-standing emergency clinics are open from 8 a.m. to midnight and do not require appointments. They accept cash, credit cards, and medical insurance assignment. The so-called "Emergency Center" in Indianapolis advertises that "We do not keep doctors' hours; we keep your hours."

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3.9%: 1971's 'Runaway Inflation' Rate

Commentary



RICHARD L. LESHER
President
U.S. Chamber of Commerce

"THE TIME HAS COME for decisive action—action that will break the vicious circle of spiraling prices and costs. I am today ordering a freeze on all prices and wages throughout the United States for a period of 90 days."

With those words, spoken on August 15, 1971, President Richard Nixon sought to quell a country up in arms over inflation, which for the first half of that year was running at a pace of—would you believe?—3.9%!

It is clear to most economists that President Nixon's wage and price controls made the long-term inflation picture worse, not better. (By 1974, prices were escalating at a rate of 11%.) But the Nixon fling with controls is instructive as we witness politicians and policymakers today patting themselves on the back for beating inflation down to an annual rate, toward the end of 1982, of 5.1%.

Make no mistake, the Reagan administration and Federal Reserve Board Chairman Paul Volcker deserve credit for courageously addressing what everyone agreed two years ago was the No. 1 problem facing America. Substantial progress has been made. After two years of double-digit inflation in 1979 and 1980, the rate was cut to 8.9% during the first year of Reaganomics and now it's down to the present 5.1%.

But these numbers don't tell the real story. Thanks to the drop in inflation, the average-income family has $1,750 more in purchasing power today than it would have had if the rate had continued at its 1980 level.

This is a message worth telling and the President is doing his darndest to make sure it gets across. But much to the chagrin of administration strategists, many Americans just aren't convinced that there is much to cheer about on the inflation front.

The reason is that 5.1% inflation is still a very serious problem and we should not be lulled into complacency by the recent progress. Prices are still going up. The hundred dollars worth of goods you purchased in 1967 today cost $293—nearly tripled in just 15 years. Moreover, if inflation were to persist at, say 5% per year over the next 10 years, that $100 worth of goods will cost $476. A car costing $10,000 today would cost $16,300 in 1992 and the $1.25 fast food hamburger would cost you more than $2.

Americans are right not to be satisfied with this kind of inflation, any more than they were satisfied with a 3.9% rate in 1971. They are waiting for the day when prices for major parts of the American dream—homes, cars, college educations, health care, and comfortable retirements—are brought within reach of the average income.

There are those who doubt that President Reagan's medicine of budget cuts, resistance to quick-fix spending programs, and greater reliance on free market forces can bring this about. But those are the same doubters who said that we would be stuck with double-digit inflation and 21% interest rates for years to come—the same doubters who said that removing controls from crude oil and returning energy prices to the dictates of supply and demand would send those prices into outer space. Today, gasoline is actually cheaper than it was when the President took office.

The inflation battle is far from won. Let's give credit where credit is due, but then press on until the American people can once again afford the American dream.



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INDICATIONS AND USAGE: These preparations are indicated for the treatment of infections caused by susceptible strains of designated microorganisms as follows: Respiratory Tract Infections (e.g., tonsillitis, pharyngitis, and lobar pneumonia) due to *S. pneumoniae* (formerly *D. pneumoniae)* and group A beta-hemolytic streptococci [penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever; Velosef (Cephradine, Squibb) is generally effective in the eradication of streptococci from the nasopharynx; substantial data establishing the efficacy of Velosef in the subsequent prevention of rheumatic fever are not available at present]; Otitis Media due to group A beta-hemolytic streptococci, *H. influenzae,* staphylococci, and *S. pneumoniae;* Skin and Skin Structures Infections due to staphylococci and beta-hemolytic streptococci; Urinary Tract Infections, including prostatitis, due to *E. coli, P. mirabilis, Klebsiella* species, and enterococci *(S. faecalis).*

Note: Culture and susceptibility tests should be initiated prior to and during therapy.

CONTRAINDICATIONS: In patients with known hypersensitivity to the cephalosporin group of antibiotics.

WARNINGS; *Use cephalosporin derivatives with great caution in penicillin-sensitive patients since there is clinical and laboratory evidence of partial cross-allergenicity of the two groups of antibiotics; there are instances of reactions to both drug classes (including anaphylaxis after parenteral use).* In persons who have demonstrated some form of allergy, particularly to drugs, use antibiotics, including cephradine, cautiously and only when absolutely necessary.

Pseudomembranous colitis has been reported with the use of cephalosporins (and other broad spectrum antibiotics); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic use. Treatment with broad spectrum antibiotics alters normal flora of the colon and may permit overgrowth of clostridia. Studies indicate a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin *in vitro.* Mild cases of colitis may respond to drug discontinuance alone. Manage moderate to severe cases with fluid, electrolyte and protein supplementation as indicated. Oral vancomycin is the treatment of choice for antibiotic-associated pseudomembranous colitis

produced by *C. difficile* when the colitis is severe or is not relieved by drug discontinuance; consider other causes of colitis.

PRECAUTIONS: General: Follow patients carefully to detect any side effects or unusual manifestations of drug idiosyncrasy. If a hypersensitivity reaction occurs, discontinue the drug and treat the patient with the usual agents, e.g., pressor amines, antihistamines, or corticosteroids. Administer cephradine with caution in the presence of markedly impaired renal function. In patients with known or suspected renal impairment, make careful clinical observation and appropriate laboratory studies prior to and during therapy as cephradine accumulates in the serum and tissues. See package insert for information on treatment of patients with impaired renal function. Prescribe cephradine with caution in individuals with a history of gastrointestinal disease, particularly colitis. Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. Take appropriate measures should superinfection occur during therapy. Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

Information for Patients: Caution diabetic patients that false results may occur with urine glucose tests (see PRECAUTIONS, Drug/Laboratory Test Interactions). Advise the patient to comply with the full course of therapy even if he begins to feel better and to take a missed dose as soon as possible. Tell the patient he may take this medication with food or milk since G.I. upset may be a factor in compliance with the dosage regimen. The patient should report current use of any medicines and should be cautioned not to take other medications unless the physician knows and approves of their use (see PRECAUTIONS, Drug Interactions).

Laboratory Tests: In patients with known or suspected renal impairment, it is advisable to monitor renal function.

Drug Interactions: When administered concurrently, the following drugs may interact with cephalosporins:

Other antibacterial agents — Bacteriostats may interfere with the bactericidal action of cephalosporins in acute infection; other agents, e.g., aminoglycosides, colistin, polymyxins, vancomycin, may increase the possibility of nephrotoxicity.

Diuretics (potent "loop diuretics," e.g., furosemide and ethacrynic acid) — Enhanced possibility for renal toxicity.

Probenecid — Increased and prolonged blood levels of cephalosporins, resulting in increased risk of nephrotoxicity.

Drug/Laboratory Test Interactions: After treatment with cephradine, a false-positive reaction for glucose in the urine may occur with Benedict's solution, Fehling's solution, or with Clinitest® tablets, but not with enzyme-based tests such as Clinistix® and Tes-Tape®. False-positive Coombs test results may occur in newborns whose mothers received a cephalosporin prior to delivery. Cephalosporins have been reported to cause false-positive reactions in tests for urinary proteins which use sulfosalicylic acid, false elevations of urinary 17-ketosteroid values, and prolonged prothrombin times.

Carcinogenesis, Mutagenesis: Long-term studies in animals have not been performed to evaluate carcinogenic potential or mutagenesis.

Pregnancy: Teratogenic Effects/Impairment of Fertility — Category B: Reproduction studies have been performed in mice and rats at doses up to 4 times the maximum indicated human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cephradine. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

Nursing Mothers: Since cephradine is excreted in breast milk during lactation, exercise caution when administering cephradine to a nursing woman.

Pediatric Use: Adequate information is unavailable on the efficacy of b.i.d. regimens in children under nine months of age.

ADVERSE REACTIONS: Untoward reactions are limited essentially to G.I. disturbances and, on occasion, to hypersensitivity phenomena. The latter are more likely to occur in persons who have previously demonstrated hypersensitivity and those with a history of allergy, asthma, hay fever, or urticaria.

(continued on next page)

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The following adverse reactions have been reported following use of cephradine: G.I. — Symptoms of pseudomembranous colitis can appear during antibiotic therapy; nausea and vomiting have been reported rarely Skin and Hypersensitivity Reactions — mild urticaria or skin rash, pruritus, joint pains. Blood — mild transient eosinophilia, leukopenia and neutropenia. Liver — transient mild rise of SGOT, SGPT, and total bilirubin with no evidence of hepatocellular damage. Renal — transitory rises in BUN have been observed in some patients treated with cephalosporins; their frequency increases in patients over 50 years old. In adults for whom serum creatinine determinations were performed, the rise in BUN was not accompanied by a rise in serum creatinine. Others — dizziness, tightness in the chest, and candidal vaginitis.

DOSAGE: Adults — For respiratory tract infections (other than lobar pneumonia) and skin and skin structures infections: 250 mg q. 6 h or 500 mg q. 12 h. For lobar pneumonia: 500 mg q. 6 h or 1 g q. 12 h. For uncomplicated urinary tract infections: 500 mg q. 12 h; for more serious UTI, including prostatitis, 500 mg q. 6 h or 1 g q. 12 h. Severe or chronic infections may require larger doses (up to 1 g q. 6 h.).

Children over 9 months of age — 25 to 50 mg/kg/day in equally divided doses q. 6 or 12 h. For otitis media due to *H. influenzae:* 75 to 100 mg/kg/day in equally divided doses q. 6 or 12 h but not to exceed 4 g/day. Dosage for children should not exceed dosage recommended for adults. There are no adequate data available on efficacy of b.i.d. regimens in children under 9 months of age.

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Digital Vascular Imaging

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DIGITAL VASCULAR IMAGING (DVI) is a new radiographic technique for imaging the arterial system utilizing an intravenous injection of contrast material. As with any new modality, DVI has acquired a number of different names, including Digital Video Subtraction Angiography (DVSA), Digital Fluoroscopy (DF) and Computerized Fluoroscopy (CF). This technique has already begun and will continue to exert a profound influence on the approach to patients with vascular disease.

Technique

An 18 gauge or smaller needle is placed into a vein in the antecubital fossa, preferably the basilic vein located medially at the elbow. A guide wire is then placed through the needle and under fluoroscopic guidance is advanced into the superior vena cava. The needle is then removed and a 5 French (1.67 mm) catheter is placed over the guide wire and advanced until the tip is in the superior vena cava. The guide wire is then removed, and the catheter is ready for contrast injection. Very rarely, a suitable vein cannot be found in the arm, and a femoral vein puncture at the groin is required with placement of the catheter into the inferior vena cava.

Standard iodinated angiographic contrast material is then injected into the catheter at a rate between 15cc and 30cc per second for a total of 40cc to 50cc. During the 2-20 seconds following the injection, the images are obtained.

Generation of the Image

Pulsed x-ray exposures are performed in the seconds following the injection of contrast. Care is taken to obtain one or more exposures before the contrast arrives at the area of interest, taking into account the amount of time it takes for passage from the superior vena cava to the area of interest. In general, the exposures are continued until the contrast bolus passes from the major arteries in the area of interest, usually within 20 seconds of the injection.

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FIGURE 1: Four-inch magnified right posterior oblique view of normal cervical carotid bifurcation.



FIGURE 2: Four-inch magnified right posterior oblique view of cervical carotid bifurcation. Severe stenosis (arrowhead) of left internal carotid artery is demonstrated.

Instead of recording the image on film as in conventional angiography, the image passes from the patient to an image intensifier and then to a television camera, just as in standard fluoroscopy. At this point, differing from fluoroscopy, the image passes to an analog to digital converter which converts the image from a picture to a series of numbers. This is accomplished by dividing the picture into several hundred thousand boxes called pixels, and assigning a number to each pixel based on the density within the pixel. Once the image is in digital (number) form, it is sent to a computer for processing and storage.

The primary computer processing performed in DVI is temporal subtraction. An image in the sequence is chosen before the contrast arrives at the area of interest, and a second image is chosen when there is peak concentration of contrast at the area of interest. These two images are numerically subtracted within the computer. If there has been no motion between the two images, the difference obtained is a numerical representation of the arteries filled with contrast, with total cancelling out of the bones and soft tissues. This data is then sent through a digital to analog converter, which converts the numerical data back to a picture which is displayed on a monitor. From the monitor a permanent record of the image is placed on film by a multiformat camera.

Advantages

The use of DVI has many advantages when compared to conventional angiography. Although not a totally non-invasive examination, placement of a catheter into the superior vena cava under fluoroscopic guidance is a very safe procedure. No significant catheter-related complications have occurred in our series of more than 600 examinations to date. Although a few institutions perform their DVI examinations with injections of contrast directly into an arm vein, the majority of radiologists feel that a more central injection into the superior vena cava is necessary to reproducibly perform high quality studies. The major risks of the procedure are the same as with any contrast study, including nausea, vomiting, allergic reactions, infection, and impaired renal function.

Secondly, the cost of a DVI is significantly less than the cost of an arteriogram. In addition, because only a venipuncture is being performed, these examinations are routinely performed on outpatients. Thus, the costs associated with admission to the hospital, which is required for arteriography, are avoided with DVI.

Thirdly, the amount of time required to perform a DVI is somewhat less than the amount of time required to perform an arteriogram. In general, patients have tolerated the procedure well, with only mild discomfort at the venipuncture site. Immediately following the contrast injection, most patients experience an intense feeling of warmth, but not the burning sensation associated with angiography.

Finally, the system has excellent contrast resolution, and this property is what allows diagnostic imaging of the arterial system following an intravenous injection.



FIGURE 3: Nine-inch anterior-posterior view of abdomen demonstrates normal single renal arteries bilaterally.



FIGURE 4: Four-inch magnified anterior-posterior view of abdomen demonstrates severe bilateral renal artery stenosis (arrowheads).

Disadvantages

An inherent disadvantage of DVI is decreased spatial resolution when compared to angiography. This simply means that very small vessels are not as well seen with DVI as they are with arteriography.

In addition, the quality of DVI is very dependent upon the patient. Because temporal subtraction is taking place, lack of motion during the procedure is essential. Most DVI units now have the ability to re-register, which is a technique to automatically or manually line up the two images to be subtracted if motion has occurred between the two images. However, the end result of re-registration is inferior to the result obtained if no motion had occurred. The motion affecting the quality of DVI can be of several types. Patient movement on the table or breathing are obvious sources. For cervical carotid studies, swallowing can be a big problem. Physiological motion plays a role as well, with heart motion in the chest and peristalsis in the abdomen degrading the images. In general, motion degrades the images by creating artifacts from incomplete subtraction of bones and soft tissues.

Another factor affecting image quality is the cardiac output of the patient. In patients with poor cardiac output, the bolus of contrast injected into the superior vena cava arrives at the area of interest later and more dilute than normal, with resultant decreased opacification of vessels.

Since DVI is a non-selective study, all of the arteries in the area of interest opacify essentially simultaneously. Thus, overlap of vessels can be a problem. This is particularly true in the neck where carotid and vertebral artery overlap can occasionally obscure lesions in either vessel.

Finally, the size of the field of view is limited by the size of the image intensifier. Although larger image intensifiers are available, most clinically operating DVI units are limited to a nine-inch field of view. This is significantly smaller than the standard 14-inch field of angiographic film.

Indications

In broad terms, the clinical usefulness of DVI can be divided into three large categories. First of all, because of its safety, DVI can be used as a screening examination. Examples include carotid DVI in the patient with nonspecific CNS complaints and renal DVI in the hypertensive patient. In addition, DVI is useful in the asymptomatic patient with a positive physical finding, such as an asymptomatic carotid bruit.

Secondly, because of its accuracy, DVI can be used as the definitive examination. More and more surgeons are now performing surgical vascular procedures on the results of the DVI alone without confirmation by arteriography. This is particularly true in the cases of carotid endarterectomies and renal artery bypass grafts.

Thirdly, DVI can be used as a follow-up examination. It is very helpful in evaluating carotid endarterectomies and renal artery bypass grafts postoperatively. DVI is also useful in the follow-

up of vessels treated with percutaneous transluminal angioplasty. Finally, sequential DVI examinations are being used to assess progression of vascular disease in patients treated medically. Examples include patients with carotid disease treated with anti-platelet medication and hypertensive patients with renal artery stenosis treated with antihypertensive medications.

Clinical Applications

The widest use of DVI currently is in the evaluation of the thoracic aorta and cervical carotid arteries for the presence of atherosclerotic disease. In a recent study by Chilcote, *et al,*[1] 100 patients were studied by both DVI and conventional angiography. Approximately three-fourths of the arteries were well visualized, and the accuracy of DVI in this group was 97%. In the remaining one-fourth of the arteries there was poor visualization, and accuracy in this group fell to 64%.

Another frequent use of DVI is in the evaluation of the renal arteries and abdominal aorta in patients with hypertension. In one report,[2] 70 renal arteries were studied by both DVI and angiography. In the 59 arteries with adequate visualization, DVI had a sensitivity of 93% and a specificity of 91.5%. In a second report,[3] 32 patients with hypertension were evaluated by both DVI and angiography. Two observers evaluated the DVI exams, with accuracy rates of 87% for one observer and 80% for the second observer.

DVI has some clinical application in evaluating the extremities for the presence of atherosclerotic disease. However, DVI is limited, especially in the lower extremities, by the nine-inch field of view available in most installations. Because of the small field of view, images of both lower extremities in their entirety cannot be obtained during one exam because of contrast volume limitations. DVI is best utilized when either physical exam or Doppler studies can localize the lesion to a specific area which then can be well visualized by DVI.

DVI has significant potential for use in evaluation of patients suspected of having pulmonary embolism. Although clinical experience with this technique is not large, one report[4] states that useful clinical information was obtained in 13 of 14 cases performed. Digital pulmonary angiography can be performed either by placing a catheter into the vena cava as previously discussed or by directly injecting a Swan-Ganz pulmonary artery catheter if one is already in place.

Cardiac imaging with DVI is an area in which active research is underway. It is felt that with EKG gating of the acquisition, the artifacts from heart motion can be minimized. Faster acquisition rates, up to 30 images per second, will allow visualization of the heart in "real time" just as cineangiography currently does. Active clinical evaluation is currently underway for imaging coronary artery bypass grafts, as well as cardiac wall motion studies and ejection fraction determinations. It is uncertain whether the coronary arteries will be able to be reproducibly imaged from an intravenous injection.

We have performed intracranial imaging with DVI in a number of patients. Although large lesions such as aneurysms and arteriovenous malformations can be detected, visualization of very small vessels is impaired secondary to the decreased spatial resolution of the system.

Summary

Digital Vascular Imaging is a new radiographic technique utilizing an intravenous injection of contrast material, and through digitization of the image and temporal subtraction, diagnostic images of the arterial system can be obtained. Improvements in image quality are sure to come in the near future, particularly in the areas of better spatial resolution and more widely available large field of view image intensifiers. With these improvements, it is felt that all angiography, whether performed via an intravenous or intra-arterial injection, will be recorded utilizing the digital technique.

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Acoustic Neuromas: Diagnosis and Management

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ACOUSTIC NEUROMAS are benign tumors which result from neoplastic proliferation of the neurilemmal sheath cells of the eighth cranial nerve. They characteristically arise from the vestibular portion of the nerve within the internal auditory canal (IAC) of the temporal bone. Their growth rate varies but left untreated these lesions expand medially into the cerebellopontine angle (CP angle). An inexorable progression of neurologic signs and symptoms involving other cranial nerves, the brainstem, or the cerebellum may result.

Acoustic neuromas account for 8% of all intracranial tumors and are the most common tumors in the CP angle. This report reviews the diagnosis and management of 44 patients with acoustic neuromas seen at the Indiana University Medical Center (IUMC) between 1976 and 1981.

From the Dept. of Otolaryngology-Head and Neck Surgery (Benecke, Miyamoto, Tubergen) and the Dept. of Neurosurgery (Campbell), Indiana University School of Medicine.

This paper was presented at the annual convention of the Indiana Speech and Hearing Association, April 22, 1982.

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Historical Review

Through the pioneering efforts of several giants in the history of acoustic neuroma surgery, this clinical entity gradually has been transformed from a highly lethal disease to a treatable malady. The first comprehensive clinical report of acoustic neuromas was made in 1830 by Sir Charles Bell.[1] Successful surgery for an eighth nerve tumor was first reported by Sir Charles Ballance[2] in 1894.

In 1917 Harvey Cushing[3] reported 30 acoustic neuroma cases and gave his classic account of the progression of symptoms resulting from tumor growth. Using improved surgical techniques, he was able to reduce the surgical mortality rate for acoustic neuroma surgery from 90% to 40% by 1930. Dandy[4] further reduced the operative mortality to 11% in 46 cases and reported no deaths in the last 16 cases in his series. In the 1950s House[5] applied the middle cranial fossa and translabyrinthine approaches to acoustic neuroma surgery. In a series of more than 1,000 acoustic tumors, he reported a mortality rate of less than 2.8%.

Review of 44 Patients

Forty-four patients with acoustic neuromas were evaluated at the IUMC from 1976 to 1981. Lesions occurred

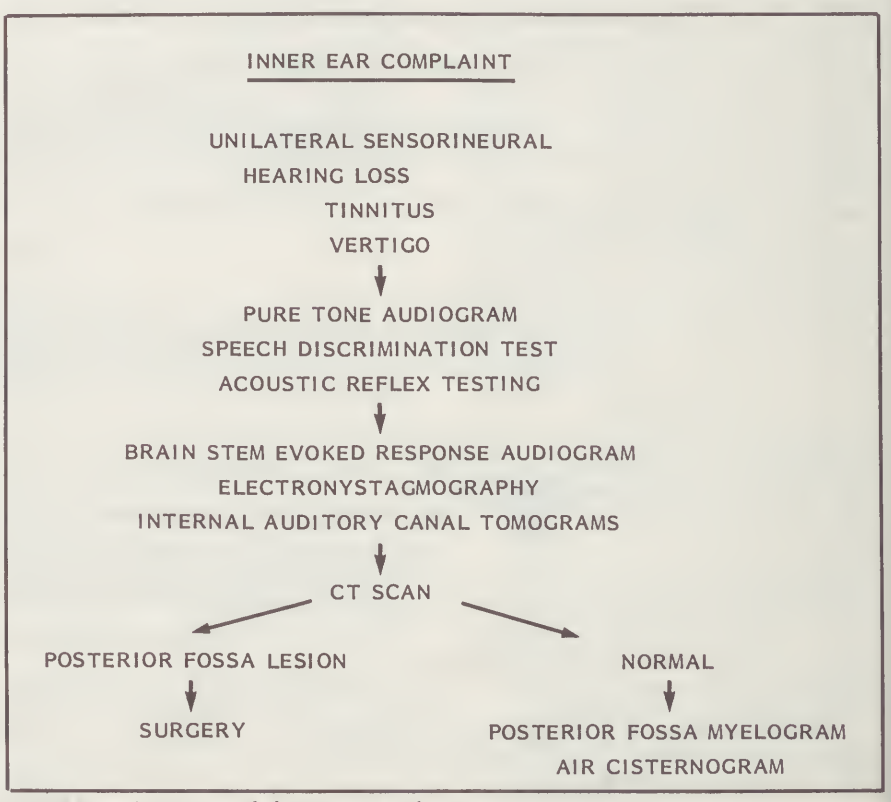


FIGURE 1: Summary of diagnostic evaluation.



FIGURE 2: CT scan demonstrating contrast enhancing posterior fossa lesion.

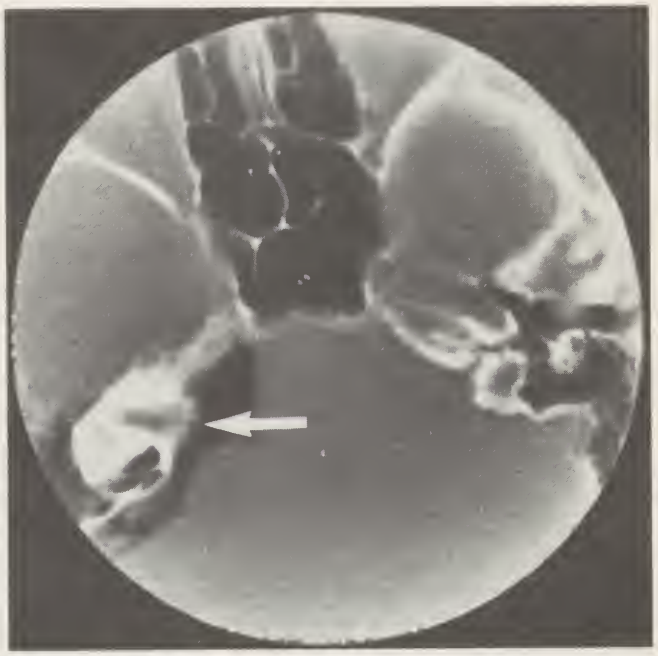


FIGURE 3: Air cisternogram demonstrating acoustic neuroma protruding from the internal auditory canal.

equally on the left and right sides. Two patients with Von Recklinghausen's disease had bilateral tumors.

The youngest patient was 19 years of age and the oldest 73 years. The mean age was 52 years.

The elapsed time from the onset of symptoms until the diagnosis of the tumor was from as short as six weeks to as long as 20 years. The mean time delay in diagnosis was 4.3 years.

The presenting symptoms were hearing loss (86%), tinnitus (53%), and vertigo (30%). Associated neurologic symptoms were noted in 16%. In all except one patient hearing loss and/or tinnitus was reported as the initial symptom. Four patients (9%) presented with a sudden hearing loss.

Diagnostic Evaluation (Fig. 1)

The hallmark of successful acoustic neuroma management is early diagnosis. When the presenting complaints of a patient elicit suspicion of tumor, an orderly sequence of clinical tests can be initiated leading to a definitive diagnosis. It is our conviction that all patients with unilateral sensorineural hearing loss, unilateral tinnitus, or vertigo deserve a careful neurotologic evaluation.

The first steps in the evaluation of a patient with a suspected acoustic neuroma consist of obtaining a pure tone audiogram, speech discrimination score, and acoustic reflex test. A retrocochlear lesion is suggested by a unilateral sensorineural hearing loss, reduced discrimination score, and an absent acoustic reflex.

Brainstem evoked response audiometry (BSER) is performed when the above tests indicate the possibility of retrocochlear pathology. Using the criteria of Selters and Brackmann,[6] BSER should have a tumor detection rate 96% with fewer than 8% false-positives. All patients in the IUMC series in whom BSER could be performed, including one patient with a normal pure tone audiogram, had an abnormal evoked response pattern.

Electronystagmography (ENG) is a useful testing adjunct in the acoustic neuroma evaluation. An acoustic neuroma generally produces a reduced or absent vestibular response to bithermal caloric testing, as seen in 82% of the patients in this series. The ENG is not highly specific but usually is performed in addition to BSER in a patient with a suspicious audiogram.

In the patient with an abnormal ENG, audiogram and/or BSER, radiologic studies constitute the next steps in the acoustic neuroma evaluation. IAC tomograms provide useful information about the integrity of the bony internal auditory canal. Abnormalities of the IAC were identified in 23 of 31 patients having tomographic studies in this series. Nearly one-fourth of the patients with tumors had normal tomograms. The IAC tomograms are followed by a cephalic CT scan *(Fig. 2)* which may lead to a definitive diagnosis. Obvious posterior fossa lesions were noted in 76% of the 38 patients who had CT scans. A 24% false-negative rate was noted because the present generation of CT scanners will not reliably detect tumors less than 2 cm in diameter. Therefore, a normal CT scan in an otherwise tumor suspect patient does not complete the workup. A posterior fossa myelogram or air cisternogram *(Fig. 3)* must

be performed. Posterior fossa myelography or air cisternography provided positive diagnostic information in all tumor patients in whom these studies were performed *(Fig. 4)*.

Surgery

Surgery was performed for ablation of acoustic neuromas in 41 patients. The surgical procedure preferred at IUMC is a combined effort involving neurosurgeons and otologic surgeons operating as a team. Thirty-seven tumors were removed by the suboccipital approach and four by the translabyrinthine approach. Eight patients had two-staged removals of their tumors due to large tumor size and associated prolonged intraoperative time.

Tumor size is best reported in the manner described by House.[5] Small tumors are limited to the IAC. Medium tumors protrude into the CP angle without neurologic sequelae. Large tumors impact the CP angle and produce neurologic findings. *Figure 5* summarizes the data on tumor size in the IUMC series.

Facial nerve preservation is an important consideration in acoustic neuroma surgery. The facial nerve resides within the IAC along with the cochlear and vestibular nerves and is therefore intimately associated with eighth nerve tumors. Postoperative facial paralysis resulted in eight patients and seemed to correlate with tumor size. Six paralyses occurred in conjunction with large tumors and two with medium-sized tumors.

The overall mortality was three patients, representing 7.3% of the total operated. Only one death was directly related to complications of the surgery itself. Two deaths occurred in the postoperative period, one from pulmonary embolus, the other from Legionnaire's disease. The operative mortality was, therefore, 2.4%.

SUMMARY OF ACOUSTIC NEUROMA WORK-UP

TEST	POSITIVE FINDING	NEGATIVE FOR LESION
ENG	18	4
AUDIOGRAM	43	1
SPEECH DISCRIMINATION	36	7
ACOUSTIC REFLEX TEST	32	5
BSER	37	0
IAC TOMOGRAMS	23	8
CT SCAN	21	9
POSTERIOR FOSSA MYELOGRAM	22	0

FIGURE 4: Summary of findings in acoustic neuroma evaluation.

Summary

A review of the symptomatology, workup, and postoperative results of 44 acoustic neuroma patients has been presented. Acoustic neuromas are not rare tumors. However, a high index of suspicion must be maintained if they are to be detected before the onset of significant neurologic symptoms associated with increase in tumor size. Auditory symptoms are the most common presenting complaints. Any patient with a unilateral sensorineural hearing loss, tinnitus, or vertigo must have an appropriated neurotologic evaluation if the goal of early tumor detection is to be achieved.

ACOUSTIC TUMOR SIZE

SMALL (INTRACANALICULAR)	0
MEDIUM (CP ANGLE WITHOUT NEUROLOGIC FINDINGS)	25
LARGE (CP ANGLE WITH NEUROLOGIC FINDINGS)	16

FIGURE 5: Data on acoustic neuroma size.

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Lung Cancer: A Comparison of Incidence Between the Amish and Non-Amish in Lancaster County

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FOR THE PAST three decades, the evidence has been overwhelming that cigarette smoking is a causal factor in the high incidence of lung cancer. This evidence has been corroborated by Hammond,[1] Doll,[2] and Kahn[3] in a number of classic research studies. The consideration of the statistical data in these studies shows that for every 10 cases of lung cancer reported for smokers, there is only one case for nonsmokers.[4]

Comparing the incidence of all diseases, including cardiovascular, respiratory and other types of cancer, this 10-to-1 ratio is the highest smoker-to-nonsmoker ratio obtained by statistical analysis. Due to this very high smoker-to-nonsmoker ratio, lung cancer is the disease most often used by health professionals and health associations to impress upon the smoker the urgency of the need to stop smoking.

All the studies noted above are based on populations or large samples which contain both smokers and nonsmokers. Thus, the 10-to-1 ratio of lung cancer translates into a cancer incidence for nonsmokers in a group of smokers and nonsmokers which is one-tenth that of smokers. Based on this information, if one were to compare nonsmokers in a pure nonsmoking population (i.e., a population in which there is no smoking or a negligible amount of smoking) with nonsmokers from a merged population containing both smokers and nonsmokers, one would expect the same low incidence of lung cancer for both populations. Also, it is necessary to determine whether or not the pure nonsmoking population has fewer cases of lung cancer than the merged population since the pure nonsmoking population has less exposure to smoke.

The problem of selecting a pure population of nonsmokers is a difficult one since most populations are composed of both smoking and nonsmoking individuals. Several possibilities exist. The Methodists and Baptists represent the largest groups of individuals who have historically been associated with nonsmoking behavior. However, in recent decades their religious convictions against smoking have been diminished to such an extent that the use of Methodist and Baptist families would not provide accurate data for a pure nonsmoking population.

Although smaller in size, another religious group which strongly advocates nonsmoking behavior is the Church of Jesus Christ of Latter-Day Saints, usually referred to as Mormons. The highest concentration of Mormons is in Utah where they represent approximately 70% of the population. However, it appears that the impact of cigarette advertising has provided sufficiently large numbers of cigarette smokers among the Utah Mormon population to make their data invalid for use as a pure nonsmoking population.

The Seventh Day Adventists and Jehovah's Witnesses are also potential groups to consider since they have very strong religious convictions regarding nonsmoking. However, they do not live in areas of high concentration and would produce too many confounding factors for comparative research purposes.

Although they do not represent a very large population, there is one group that appears to be ideal for this study—the Amish. For over a century the Amish

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have resisted the temptation of cigarette smoking because of their religious convictions.[5] They are known for not intermingling with the non-Amish population. The Amish live in high concentrations in different sections of the country and are located in Pennsylvania, Ohio, Indiana, Iowa and Illinois. The highest concentration of the Amish is found in Lancaster County, Pennsylvania.

The Amish have lived in Lancaster County for nearly two centuries and have gained a reputation for being excellent farmers. Their closed society has been especially helpful in assisting them to maintain their independence and resolve not to accept modern influences such as cigarette smoking, alcohol, television and the automobile. While it is true that a few of the Amish do smoke cigars since tobacco is one of the crops which they grow and that some of the younger members of the society have started to smoke cigarettes, in general there are few cigar or cigarette smokers found among the middle-aged or older groups where lung cancer cases are most likely to appear.

Thus, the Amish population is the purest nonsmoking population that can be obtained in the USA. The incidence of lung cancer among the Amish in Lancaster County can be compared with the incidence of lung cancer among the non-Amish in the same county. This study was initiated to compare the incidence of lung cancer among a pure nonsmoking population with nonsmokers in a merged population of smokers and nonsmokers.

Methodology

To obtain information on the lung cancer incidence in the Amish and non-Amish populations, arrangements were made with the Lancaster General Hospital to use data from their Cancer Register which had been instituted in 1971. This Register contains information on the specific type of cancer causing the death of an individual and provides his or her religious affiliation.

The director provided instructions to the graduate research assistant in medical records on the procedure for selection of individuals for the study. The assistant was provided with the Cancer Registry lists from 1971 to 1977. Those whose deaths were attributed to lung cancer were separated into two categories: Amish and non-Amish.

In addition, the director interviewed physicians who treat the Amish to obtain their observations concerning the incidence of lung cancer among the Amish in Lancaster County. The estimated population of the Amish and non-Amish was obtained from the Bureau of Vital Statistics of the Pennsylvania Department of Health and the Amish Information Center.

Results

Analysis of the lung cancer cases in Lancaster County recorded in the Cancer Register of the Lancaster General Hospital shows 348 cases of lung cancer among the non-Amish population and one case of lung cancer among the Amish population. The one case in the Amish population was identified as a cigar smoker.

Based on the vital statistics of Lancaster County, the total population in 1977 was 349,500 and the population of the Amish in the county was approximately 12,000. These figures show a ratio of 30 non-Amish to each Amish resident of Lancaster County. Adjusting the number of cases of lung cancer to reflect the population size of the two different populations, the expected number of cases of lung cancer for the Amish population would be 12 cases had the population contained both smokers and nonsmokers.

Since the ratio of smokers to nonsmokers has been shown to be 10-to-1 for lung cancer, an additional adjustment for nonsmokers has to be made for the Amish population. This final adjustment provides an estimate of 1.2 cases of lung cancer for the Amish population of nonsmokers.

Thus, this low incidence of lung cancer for a pure non-smoking population is verified. This low incidence of lung cancer also was reported in interviews with physicians who treat the Amish.

Since there were no reported cases of lung cancer for the nonsmoking Amish population, this incidence is lower than would be expected even after making adjustments for a nonsmoking merged population.

Discussion

It is apparent from the data that the non-Amish non-smoking population and the Amish population in Lancaster County have a much lower lung cancer incidence rate than the smoking population in the county. This low incidence should be anticipated based on the tenfold reduction in lung cancer cases reported in the previous studies. Thus, the hypothesis that a pure nonsmoking population has a low incidence of lung cancer is verified.

An important observation from the data is that only one case of lung cancer was recorded among the Amish population, and he was identified as a cigar smoker. Thus, there were no cases of lung cancer among the nonsmoking Amish. This absence of lung cancer among the nonsmoking Amish reported from the analysis of the Cancer Register data and the verification by physicians treating the Amish gives credence to a hypothesis that the lung cancer incidence of the nonsmoking Amish (a pure non-smoking population) is lower than that among the nonsmoking population in Lancaster County (a merged smoking and nonsmoking population). Although the number of cases in this instance is small, this hypothesis should be given consideration.

There are a number of reasons that can be proposed to explain the hypothesis. The most obvious explanation could be based on the assumption that the unpressured life of the farmer when compared to the stress reported in urban life is responsible for the lower incidence of lung cancer among the Amish. However, stress does not appear to be associated with a higher incidence of lung cancer but is most often attributed to cardiovascular difficulties.[6]

Another potential reason could be attributed to the theory that the air on the farm is less likely to contain harmful carcinogenic compounds than the air in the city. However, Lancaster is a medium-sized city and there does not appear to be any significant difference in the air quality between Lancaster and the surrounding rural areas, according to reports from the EPA. In addition, research on lung cancer shows little difference in lung cancer incidence between urban and rural areas when smoking is controlled.[7]

The third possibility to be considered is hereditary differences, that is, a difference in genetic structure of the Amish that would provide Amish males with greater immunity to lung cancer than non-Amish males. However, research gathered by Amish authorities[8] shows only minor genetic differences such as dwarfism and stubby hands.

A fourth possibility to explain the hypothesis of the lower cancer rate of the Amish could be attributed to the smoke-free environment of the Amish (i.e., no second-hand smoke or passive smoking).

A recent report by Schmidt[9] provides documented evidence of the innumerable dangerous carcinogenic compounds produced by smokers which are inhaled by nonsmokers. In addition, five recent reports show the definite impact of passive smoking on nonsmokers.

Four of the studies used the technique of comparing nonsmoking wives of nonsmoking husbands with nonsmoking wives of smoking husbands. The studies by Hirayama,[10] Miller[11] and Tripocolis[12] showed very significant increases in lung cancer and other diseases for nonsmoking wives whose husbands smoked. And although the recent study by Garfinkel[13] did not obtain significant results, the trend showing the ill effects of passive smoking is clearly evident in the reported data. A fifth study, by White,[14] showed that chronic exposure to tobacco smoke in the work environment is deleterious to the nonsmoker and significantly reduces small airways functioning.

Thus, these five studies provide substantial evidence that passive smoking does appear to cause increased morbidity and mortality for the nonsmoker and, conversely, that the lack of passive smoking would provide decreased morbidity and mortality.

Since practically all Amish households are smoke-free, they do not have the passive smoking problems found in the households filled with smoke in the non-Amish populations due to smoking family members. Also, because the Amish do not smoke (with but few exceptions), they would not be exposed to buildings which are filled with smoke when visiting friends or conducting business. Thus, the smoke-free environment of the Amish is a valid reason for the explanation of the lower incidence of lung cancer for the Amish population when compared with the non-Amish population.

More research is needed to determine whether large populations of Amish show the same lower incidence of lung cancer when compared to non-Amish populations. Such a study would provide additional information on the incidence of lung cancer in a larger Amish population and the effect of passive smoking on lung cancer.

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Acute Dissection of the Aorta

Recent Advances in Diagnosis and Surgical Therapy

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ACUTE DISSECTION of the thoracic aorta has been associated with high mortality in patients treated with either medical or surgical therapy.

Medical or nonoperative treatment of dissection of the ascending aorta frequently fails because of rupture of the false channel into the pericardium with resultant tamponade, or compromise of coronary blood flow because of dissection of blood around the coronaries with compromise of the lumens of these arteries.

The surgery for acute dissection of the aorta usually involves replacement of that portion of the aorta that contains the point of entrance with a dacron graft. The tissues are so fragile that bleeding from the suture lines is frequently associated with the cause for a poor result.

An associated problem with acute dissection is, on occasion, difficulty in making the diagnosis even with a good quality aortogram.

Some recent innovations in the diagnosis and treatment of acute dissection of the aorta are illustrated in the following case presentation.





FIGURE 1: X-rays (above and below) on consecutive days show progressive widening of the mediastinum.

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Case Report

The patient is a 54-year-old gentleman who has enjoyed good health with the exception of moderate hypertension the past eight years.

Two days prior to admission, the patient, without any warning, experienced sudden severe pain over his upper sternum that radiated to his upper dorsal spine. The pain was so severe that he fell to the floor even though he did not lose consciousness or feel faint. At the hospital in Connersville, he did not have EKG or enzyme evidence of myocardial infarction, but x-rays of his chest on consecutive days suggested mediastinal widening, particularly adjacent to the ascending aorta *(Fig. 1)*.

He was transferred to Methodist Hospital on Feb. 13, 1981 with a presumptive diagnosis of acute aortic dis-



FIGURE 2: Aortograms in two projections (left and right) failed to show dissection of the aorta.

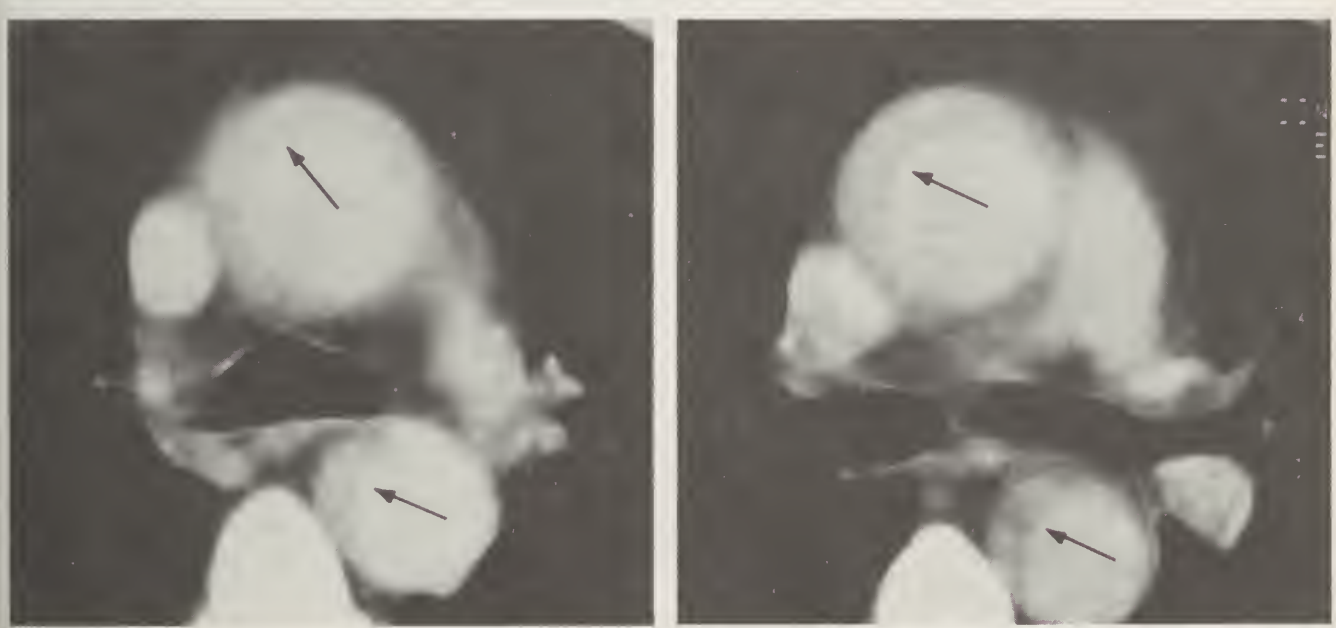


FIGURE 3: Infusion CAT scans (left and right) show dissection of the ascending and descending aorta. The arrows point to the septum between the true and false lumen.

section. Work-up confirmed the findings at his local hospital. A good quality thoracic aortogram in two projections was done and there was no evidence of aortic dissection *(Fig. 2)*. A CAT scan was done and this did not make the diagnosis, but a CAT scan with infusion of radiopaque dye identified dissection of the ascending and descending thoracic aorta *(Fig. 3)*.

The following day the patient was taken to surgery and placed on cardiopulmonary bypass and cooled before the mediastinum was entered. There was obvious dissection of the ascending aorta with 200 cc blood in the pericardium.

Using profound systemic hypothermia and cardiopulmonary arrest, we opened the aorta, identified the dissection and the point of entry was just above the aortic valve (the usual location).

A new type graft which fits within the aorta (U.S.C.I. intraluminal graft) was placed within the ascending aorta, secured with two sutures at each end and then tied in place. The aorta was then closed over the graft. No aorta was resected and the customary bleeding did not take place.

The remainder of his operative course was routine and he went home on the 13th postoperative day *(Fig. 4)*.



FIGURE 4: A lateral x-ray of the chest shows the two rigid rings at the ends of the intraluminal prosthesis (arrows).

Conclusions

Aortic dissections will always remain a therapeutic challenge but two recent innovations will help.

Infusion CAT scans will more positively identify which portions of the aorta are involved with dissection.[1] The new intraluminal graft will simplify the operation and therefore make the operation safer for the acute patient.[2]

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The Association of Malabsorption Syndrome with a Campylobacter Fetus Infection

C. E. HEALY, M.D.
Evansville

A YOUNGSTER RECENTLY presented with chronic abdominal pain and weight loss. Diagnostic studies disclosed an intestinal infection with *Campylobacter.* Following treatment with appropriate antibiotics, all the symptoms promptly resolved and biochemical evidence of poor absorption and inflammation returned to normal.

Case Report

The patient is a 10-year-old boy who presented with chronic abdominal pain of six months' duration. Previously, he had been known to have abdominal pain due to milk sensitivity, so this food was excluded from his diet. In spite of careful dietary restriction, he continued to have abdominal pain and weight loss. He was admitted to hospital for studies.

Weight on admission was 92 pounds, down from a peak weight of 103 pounds six months earlier. He complained of periumbilical, dull aching, almost constant abdominal pain, which was worsened by eating, and chronic fatigue. No nausea or vomiting occurred. The stools were described as mushy and more frequent than normal. Family history revealed that the paternal grandfather had ulcerative colitis. There were no other gastrointestinal diseases in the family.

Laboratory studies: CBC was normal with a hemoglobin of 15.1 grams per cent. Erythrocyte sedimentation rates were 23 and 27 millimeters per hour, respectively. Amylase was normal. SMA-12 profile was normal. T4 and T7 were normal. Barium enema with reflux into the terminal ileum was normal. Upper gastrointestinal small bowel x-ray revealed rapid transit through the small bowel with some flocculation of the barium in the small bowel. These findings were considered abnormal, but not diagnostic of any disease.

PPD Skin Test was normal. Immunoglobulin study revealed elevated gamma A and gamma M globulins, suggestive of a chronic inflammatory process such as a chronic infection, regional enteritis, and rheumatoid arthritis, etc. Serum carotene was 84 micrograms per deciliter. Three stools for ova and parasite examinations, pH and sugars, and occult blood were normal. Smear of the stool revealed an occasional white cell, but no red cells. Three cultures of the stool revealed *Campylobacter fetus (s.s. jejundi).*

Erythromycin, as erythromycin ethylsuccinate, 500 milligrams, three times a day, was prescribed. The patient had previously shown abdominal pain with erythromycin, and he promptly developed marked increase in his abdominal pain. Medication was attempted for three days, but it was impossible to continue treatment past this time. The erythromycin was, therefore, discontinued and tetracycline, 250 milligrams, four times a day, was begun.

After several days, the abdominal pain had markedly decreased and he had gained three pounds. His appetite and general well-being had improved. Stool patterns returned toward normal. Repeat carotene level showed a rise to 126 micrograms per deciliter. Sedimentation rate returned to normal. The immunoglobulin pattern returned to normal. After eight weeks, his stamina had returned, he was able to engage in normal activities, and he had gained 10 pounds. He still had occasional abdominal pain with milk ingestion, but otherwise was completely asymptomatic.

Campylobacter had been known to cause disease in animals and there had been suspicion that it was a pathogenic organism in man.[1] Because of unusual cultural characteristics, it had been difficult to isolate in most clinical laboratories. However, when searched for, the organism has been responsible for a significant percentage of acute diarrhea syndromes. Most episodes are associated with fever, abdominal pain, diarrhea with blood in the stool and very little nausea and vomiting. Dehydration is infrequent.[2] The majority of patients stop shedding the organism within a few weeks after the acute illness and symptoms rarely occur past the acute phase. However, a child occasionally will have abdominal pain persisting for a few weeks after the acute illness.[3]

This boy's clinical course with persistent and chronic abdominal pain associated with more bulky and frequent stools, generalized malaise, and documented weight loss of 10 pounds over six months' time, appears unusual. The prompt resolution of symptoms after adequate antibiotic therapy is strongly suggestive that the *Campylobacter* organism was the cause of the chronic abdominal pain, weight loss and malabsorption symptoms.

Correspondence: Welborn Clinic, 421 Chestnut St., Evansville, Ind. 47713.

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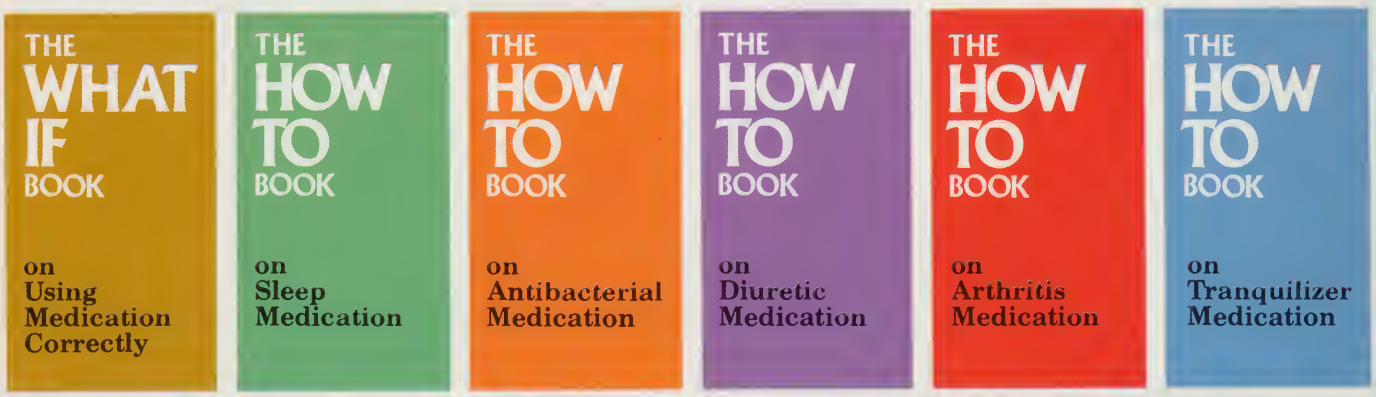
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COUNTY	PAID	EXEMPT	ISMA TOTAL	AMA TOTAL
ADAMS	12	1	13	9
BARTHOLOMEW-BROWN	77	12	89	71
BENTON	3	1	4	2
BOONE	14	5	19	9
CARROLL	8	3	11	11
CASS	35	6	41	24
CLARK	76	1	77	49
CLAY	9	2	11	6
CLINTON	12	4	16	13
DAVIESS-MARTIN	16	4	20	15
DEARBORN-OHIO	24	0	24	15
DECATUR	10	3	13	9
DEKALB	15	5	20	17
DELAWARE-BLACKFORD	132	19	151	102
DUBOIS	32	3	35	28
ELKHART	118	14	132	102
FAYETTE-FRANKLIN	23	2	25	15
FLOYD	57	3	60	44
FORT WAYNE-ALLEN	380	56	436	359
FOUNTAIN-WARREN	10	3	13	11
FULTON	5	2	7	5
GIBSON	8	6	14	12
GRANT	76	14	90	71
GREEN	11	7	18	13
HAMILTON	26	1	27	17
HANCOCK	30	1	31	19
HARRISON-CRAWFORD	6	1	7	6
HENDRICKS	31	2	33	21
HENRY	36	5	41	26
HOWARD	81	11	92	82
HUNTINGTON	14	5	19	7
INDIANAPOLIS-MARION	1189	181	1370	1058
JACKSON	19	5	24	18
JENNINGS	2	1	3	2
JASPER	10	2	12	10
JAY	13	3	16	11
JEFFERSON-SWITZERLAND	27	6	33	28
JOHNSON	40	2	42	29
KNOX	49	5	54	44
KOSCIUSKO	20	1	21	14
LAGRANGE	7	2	9	6
LAKE	569	58	627	485
LAPORTE	87	10	97	76
LAWRENCE	40	4	44	25
MADISON	100	16	116	66
MARSHALL	20	0	20	13
MIAMI	18	3	21	17
MONTGOMERY	18	6	24	17
MORGAN	19	5	24	18
NEWTON	6	0	6	3
NOBLE	14	2	16	13
ORANGE	6	1	7	3
OWEN-MONROE	120	14	134	67
PARK-VERMILLION	12	1	13	9
PERRY	4	2	6	6
PIKE	1	0	1	1
PORTER	95	6	101	84
POSEY	4	2	6	5
PULASKI	4	1	5	3
PUTNAM	13	3	16	13
RANDOLPH	13	7	20	14
RIPLEY	5	2	7	4
RUSH	8	5	13	9
ST. JOSEPH	242	48	290	247
SCOTT	6	1	7	7
SHELBY	21	3	24	18
SPENCER	2	0	2	1
STARKE	7	3	10	8
STEUBEN	13	3	16	12
SULLIVAN	7	5	12	12
TIPPECANOE	167	24	191	155
TIPTON	10	3	13	11
VANDERBURGH	348	44	392	314
VIGO	129	27	156	97
WABASH	23	3	26	13
WARRICK	12	1	13	4
WASHINGTON	7	1	8	7
WAYNE-UNION	73	13	86	70
WELLS	43	11	54	52
WHITE	7	2	9	6
WHITLEY	9	2	11	9
TOTALS	5066	752	5817	4404
FOR INFORMATION:				
1981 Totals	4942	719	5661	4482
1980 Totals	4786	707	5493	4379
1979 Totals	4691	662	5353	4287
1978 Totals	4616	602	5218	4058
1977 Totals	4529	572	5101	4122
1976 Totals	4341	581	4922	4110

RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

New information from
Office of the Commissioner
Indiana State Board of Health
1330 W. Michigan St.,
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

The past successes of immunization programs in Indiana uniquely illustrate what can be done when there is cooperative involvement of both the public and private sectors, when both local and state efforts are focused upon a common goal. The great majority of vaccine doses in Indiana are administered in private physicians' offices. In addition, countless hours of the time of school administrators, school nurses, public health nurses, physicians' office staff, and volunteers have been devoted to a review of school records and the other tasks necessary to identify and immunize susceptibles.

Although we in public health and practicing physicians alike try to express appreciation for this effort through forums such as this article, the real thank you is implied in the lives saved and the suffering averted. There now are some 15,000 children in this country who are not retarded as a result of rubeola because disease has been prevented by vaccine. After the last rubella epidemic, in 1964-1965, an estimated 20,000 children were born in the United States with the multiple handicaps of congenital rubella; given the six to nine year cycle of the disease at least two such epidemics have been prevented with vaccine. An entire generation has now grown to adulthood and become parents without the panic caused by polio.

The most dramatic success of recent years has been in the prevention of measles. In 1976 and 1977, 8,992 cases were reported in Indiana. In 1981, nine cases were reported. To date, only two cases have been reported in 1982; both could be linked to out-of-state travel during the period of exposure. In a large measure, declining morbidity can be related to increasing school immunization levels. For the school year 1981-1982, 90% of students enrolled were reported as receiving an adequate series of immunizations.

We must now look beyond our encouraging record toward the remaining problems. Among such continuing concerns, I would like to stress the following:

1. Spot checks of school records reveal that, particularly among junior and senior high school students and young adults, significant numbers do not have documented records of live measles vaccine at or after the first birthday. School record reviews are needed to identify such students. Colleges should implement programs to reach susceptibles. Recent outbreaks in Florida and Texas, with more than 100 cases each among these population groups, demonstrate that measles has not yet been defeated.

2. Even though measles transmission has been essentially halted in Indiana, the danger of outbreaks continues. What happened in Texas and Florida could happen here. All suspected rash cases should be reported immediately. Immunization representatives are available from the Board of Health to investigate each case to determine travel, source, spread, and susceptible contacts. Acute and convalescent sera should be collected. Response to suspected measles in a school includes immunization record review and exclusion of all students without documented live vaccine at or after the first birthday or a history of physician-diagnosed disease.

3. Rubella and consequent congenital rubella syndrome remain a problem. A laboratory-confirmed outbreak among teenagers and adults affected several counties in Indiana in the spring of 1982. Both Public Health Service and American Academy of Pediatrics recommendations stress that susceptibles of all ages, both male and female, need to be identified and immunized. Although there is a theoretical risk to the fetus should a pregnant female be vaccinated, a national registry of such inadvertent vaccination reports that no congenital rubella syndrome due to vaccine has yet been observed. Adequate precautions include asking females if they are pregnant, excluding those who say they are, and counseling females that they should not become pregnant for three months following immunization. To quote the 1982 edition of the American Academy of Pediatrics *Red Book,* "Special attention should be given to immunization of health care workers." Approximately one-third of Indiana hospitals do not yet have a rubella program for employees. Females screened for prenatal and premarital reasons need to be followed to insure that susceptibles identified are actually immunized.

4. The school immunization law has been our most effective tool to date. However, we cannot wait until children reach school age to protect them. Ninety-nine per cent of two-year-olds in Indiana have received at least one dose of vaccine, but approximately one-quarter have not received the full series recommended. Systems need to be in place to notify parents and recall children who fail to return for immunization. Patients' immunization records should be reviewed periodically. Hospitals have a unique opportunity to provide immunization education for almost all new mothers in the state. The Indiana State Board of Health provides resources for such programs.

Dr. William H. Foege, director of the Centers for Disease Control, Atlanta, in a meeting there in May 1982, spoke of "fine tuning to go from good to great." The phrase is applicable to Indiana. The challenge of preventing needless suffering and death from measles, mumps, rubella, diphtheria, tetanus, pertussis, and poliomyelitis still remains before us.

For additional information on Indiana's program, contact Charles L. Barrett, M.D., director of the Division of Chronic and Communicable Disease Control, Indiana State Board of Health, Indianapolis—(317) 633-8422.

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New information from
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American Cancer Society, Inc.
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EVERY PHYSICIAN'S OFFICE—A CANCER DETECTION CENTER

CANCER CORNER

Third National Seminar on Community Cancer Care—Sept. 16-18, Hyatt Regency, Indianapolis. Co-sponsored by Community Hospital of Indianapolis, Inc.; Methodist Hospital of Indiana, Inc.; St. Vincent Hospital and Health Care Center; St. Francis Hospital Center; Parkview Memorial Hospital, Ft. Wayne; St. Joseph's Medical Center, South Bend; Methodist Hospitals, Gary; Deaconess Hospital, Evansville; Little Red Door, Marion County Cancer Society; Community Alimentation Services, Inc., Indianapolis; and the Association of Community Cancer Centers (ACCC), Rockville, Md.

The purpose of this seminar is to provide information and direction about how to plan, develop and implement components of community cancer programs. It is directed to persons who have the day-to-day responsibility in community hospitals for planning and administrating cancer program components. Our audience will include hospital administrators, physicians, nurses, dietitians, pharmacists, social workers, chaplains, and other allied health personnel who have the responsibility for cancer patient/family care.

Our intent is to assist cancer program personnel with getting solutions to the problems they encounter in cancer program development. The seminar format includes round table discussions, curbside consultations with small groups, mini-sessions, one-to-one individual consultation, displays and general sessions.

Seminar objectives are:

1. To continue to clarify the importance of quality cancer program development in community hospitals.
2. To examine different approaches to community cancer program development.
3. To give direct response to specific problems generated through cancer program development.
4. To introduce recent concepts and issues affecting cancer program development.
5. To give assistance to the newly developing community cancer program and to the expanding and updating of existing community cancer programs.

Contact Dixie Mattingly, Continuing Medical Education, Methodist Hospital, 1604 N. Capitol Ave., Indianapolis, 317-929-8215.

Continuing Education Meetings

Ninth Annual Meeting of the Association of Community Cancer Centers (ACCC)—March 11-13, Hyatt Regency, Capitol Hill, Washington, D.C. Contact Jane Mortenson, 11600 Nebel St., #201, Rockville, Md., 301-984-9496.

Diagnosis and Treatment of Common Human Tumors—April 21-23, Hyatt Regency, Lexington, Ky. Contact American Cancer Society, Kentucky Division, 1169 Eastern Parkway, Louisville, Ky. 40217.

Second National Conference on Meeting the Challenge of Cancer Among Minorities—April 28-30, sponsored by the American Cancer Society, Memphis, Tenn. Contact Mrs. Agnes J. Dixon, ACS, 777 Third Avenue, New York, N.Y. 10017.

First World Congress on Cancers of the Skin—May 18-20, sponsored by The Skin Cancer Foundation, New York. Contact The Skin Cancer Foundation, 475 Park Avenue South, New York, N.Y. 10016.

Oncology Nursing Notes

Master's Program in Cancer Nursing—The American Cancer Society, Indiana Division, has a scholarship program to support nurses who are interested in obtaining a Master's degree with a speciality in oncology nursing. The deadline for receipt of applications is March 15. The review of applications will take place prior to the June 1983 Board of Directors meeting. The brochure and application form have been revised and are available from the Medical Affairs Department, ACS, Indiana Division, 4755 Kingsway Dr., Suite 100, Indianapolis 46205.

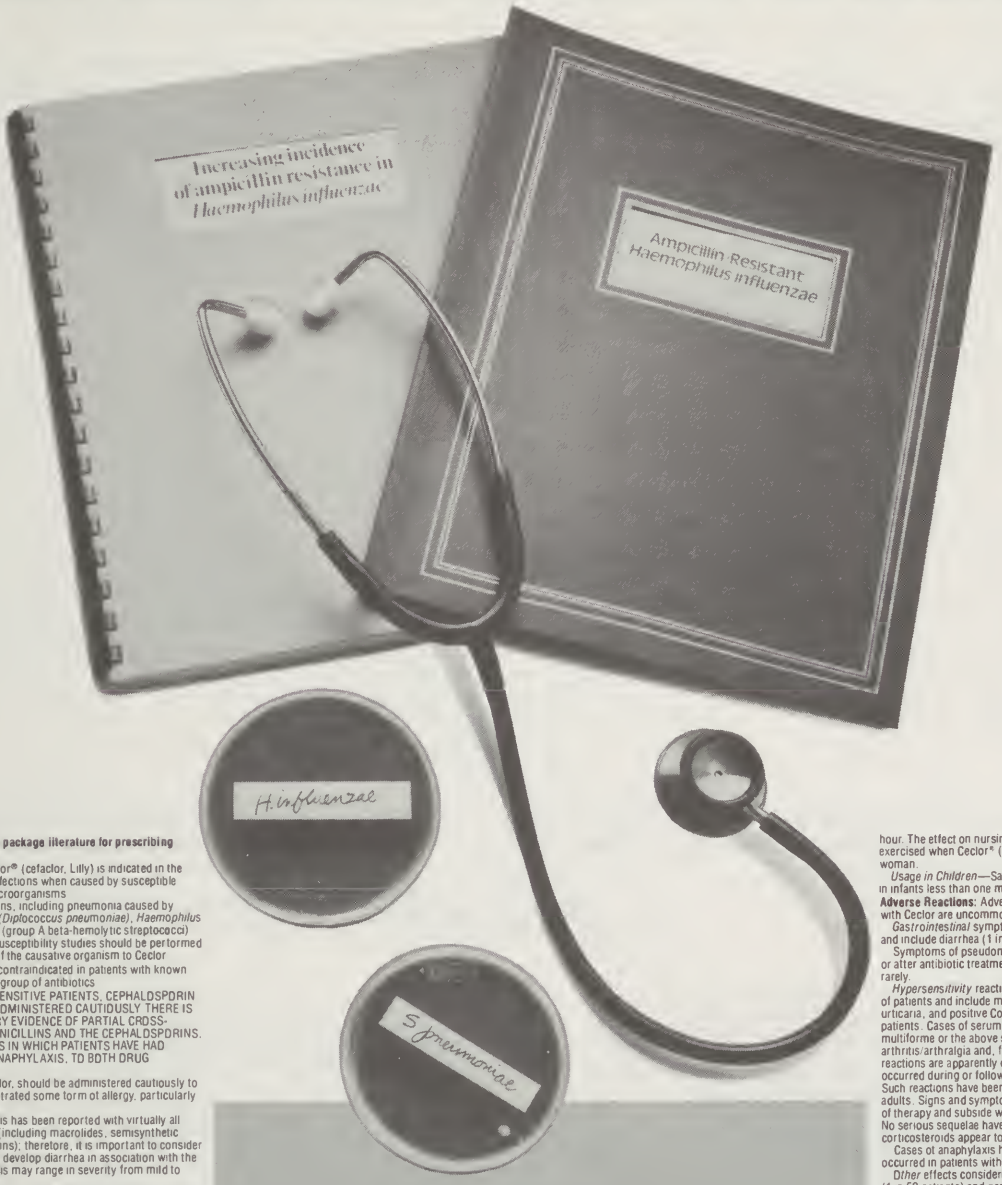
Oncology Nursing Society's Eighth Annual Congress—May 18-21, Town and Country Hotel, San Diego, Calif. Contact Oncology Nursing Society, 701 Washington Road, Pittsburgh, Pa. 15228, 412-344-3899.

Proceedings of Third National Conference on Cancer Nursing, 1981—The proceedings include 30 papers that were presented at the Conference, held at the Atlanta Hilton Hotel, Atlanta, Ga., October 1981. The topics span many areas of concern to today's cancer nurse. Some of them are: the nurse's role in screening and early detection; sex counseling of patients in remission; gaining truly informed consent by communicating with cancer patients; the role of the American Cancer Society and the oncology nurse; and new trends in cancer nursing practice by the president of the Oncology Nursing Society. Limited copies may be ordered through the Distribution Department, Code No. 3029, American Cancer Society, Indiana Division, 4755 Kingsway Dr., Suite 100, Indianapolis 46205.

Cancer Residency for Hospital Chaplains will be held at St. Joseph's Hospital, Marshfield, Wisc., April 10-13, 17-20, and 24-27.

The objective of this residency is to teach hospital chaplains the procedures involved in establishing and conducting the Cancer Residency for Clergy in their own hospital setting and to update them on the medical management of people with cancer. The fee for the 3½ day session is $150.99. This fee includes food, lodging, and learning materials. Applications or requests for more information should be made prior to March 1 to Chaplain Paul R. Engwall, Cancer Residency for Clergy, St. Joseph's Hospital, 611 St. Joseph Ave., Marshfield, Wisc. 54449, 715-387-7753.

An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

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Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and S. *pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions*—If an allergic reaction to Ceclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers—Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor* (cefaclor, Lilly) is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations of SGDT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either S. *pneumoniae* or *H. influenzae*.[8]
Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References
1. Antimicrob. Agents Chemother., *8*:91, 1975.
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7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

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WHAT'S NEW?

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Inspiron has a line of prefilled humidifiers which are designed for safety and convenience. Two sizes—300 and 600 ml—can be ordered with a snap-on base for stability. The humidifiers are closed-system and disposable and reduce chance of cross-contamination.

Upjohn has received FDA approval to market Halcion, a prescription hypnotic. It has been sold in more than 50 countries with a good record of use.

Hewlett-Packard has a new critical-care network called HPCARE-NET, which allows high-speed transmission of accurate patient waveform, vital-sign and alarm information to every bedside monitor/terminal to aid the clinician in making therapy decisions. HPCARE-NET can include up to 24 bedsides and six central stations. It can be integrated with any existing H-P 500 Series central stations or 780 Series monitors.

Matthew Bender & Company has released a revised third edition of the *Doctor's Tax Manual.* It is designed for use by accountants and tax practitioners but is also of value to individual doctors. It covers, among other points, the guidelines on audits, information on financial planning, and personal and estate planning. $24.

The 3M Company has designed a new stethoscope to meet the needs of internists and other specialists. It provides a larger bell and heavier chestpiece for excellent acoustic properties. It has soft eartips for ear comfort and acoustical seal, and all-steel eartubes for durability. It is claimed to be more portable than most cardiology scopes.

The 3M Company has a new electronically controlled, time-cycled and pneumatically powered ventilator designed for use in the care of premature infants. The 3M Babybird 2 Ventilator Model 8901 features a safety relief pressure valve and adjustable, calibrated controls for flow, inspiratory time and frequency. Instant monitoring of both patient and ventilator is possible by means of multiple audible and visual alarms.

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AUXILIARY REPORT

Karen (Mrs. Robert M.) Schleinkofer
President, ISMA Auxiliary

Anne Throop
President
Marion County Auxiliary

From April 1980 to October 1982 the Indiana Ronald McDonald House covered the distance between dream and reality, and the Marion County Medical Auxiliary is proud to have played a part in the construction of this 24-bedroom house, which is truly a symbol of caring and sharing.

Leading the all-volunteer undertaking was Our House, Inc.—a not-for-profit organization of parents, volunteers and representatives from the Indiana University Medical Center and McDonald's restaurants, and on October 14, 1982 the House opened to the public virtually debt free. In the spring of 1982 the Auxiliary contributed $5000, an amount sufficient to furnish two of the 24 bedrooms, and a number of Auxiliary members are involved on a daily basis as volunteers in the daily operation of the House.

The support and interest reached an all time high last summer and fall as the Auxiliary took on the responsibility of furnishing a fully decorated Christmas tree to be displayed in the impressive two-storied greatroom of the House.

Project coordinator Sally Morton (Mrs. Philip M.) worked with the membership throughout the summer and fall, making and accumulating more than 200 crocheted, knitted and handpainted decorations. The stockpile was increased by another 140 ornaments at the "Christmas in October" general membership meeting and luncheon on October 7, 1982. Those attending were urged to bring their own creation for the tree—to be decorated by Auxiliary members after Thanksgiving.



Children's Choir entertains during dedication.

On December 5, 1982 the families living in the House during the Holidays and Auxiliary members were guests at a dedication ceremony planned by Sheila Schroeder (Mrs. James E.). The Children's Choir from North Meridian Street Methodist Church entertained with their special selections, after which everyone joined in the singing of traditional Christmas carols. It was a moment not likely to be soon forgotten by adults who sometimes lose sight of the meaning of Christmas, and by the children living in the House who would receive a special ornament to take home as a gift from the Auxiliary.

The project has become a rallying point for the membership—while watching the House come together, and now to be continued through volunteer service hours on a regular basis. The House was filled to capacity when it opened and has continued that way, and we feel as if we have shared in the fulfillment of a dream in a way that has given the Auxiliary membership something for everyone—the young, the not-so-young and the in-between.

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FUTURE FILE

Indiana University CME

For the primary care physician:

Feb. 10—New Horizons in Cardiovascular Therapy—Terre Haute. Sponsored by the American Heart Association and I.U. School of Medicine.

Feb. 17—Pulmonary Infections: Diagnosis and Management—Richmond.

March 16—Treatment of Cardiovascular Disease in the 80s: Angiotensin Converting Enzyme Inhibition and Beta Blockade.

For the specialist:

March 25, 26—Current Diagnosis and Treatment of Macular Disease for the Practicing Ophthalmologist.

For more information, contact the CME Division, I.U. School of Medicine, (317) 264-8353.

Clinical Neurology

Vanderbilt University School of Medicine will conduct its sixth annual Symposium on Contemporary Clinical Neurology July 19 to 23 at the Hyatt Hotel, Hilton Head Island, S.C.

Write Mrs. Joan Sullivan, Department of Neurology, Vanderbilt University, Nashville, Tenn. 37212.

Common Human Tumors

"Diagnosis and Treatment of Common Human Tumors" will be the subject of a conference conducted by the American Cancer Society, Kentucky Division, at the Hyatt Regency in Lexington, Ky., April 21 to 23.

The correspondent is John R. van Nagell, Jr., M.D., University of Kentucky Medical Center, Lexington, Ky. 40536.

Pediatric Critical Care

The second annual Pediatric Critical Care Symposium will be conducted by Methodist Hospital at the Sheraton West Hotel in Indianapolis on March 2 and 3. The course carries 14 hours AMA Category 1 credit.

For further information, contact the Office of Continuing Education, 1604 N. Capitol Ave., Indianapolis 46202—(317) 929-3733.

Minhas Memorial Lecture

The fourth annual Kareem B. Minhas Memorial Lectureship will be held Tuesday, March 8, at 6 p.m. at Kosair-Children's Hospital, Louisville, Ky.

The lecturer will be Alexander S. Nadas, M.D., professor of pediatrics, Harvard Medical School. He is recognized internationally in pediatric cardiology.

The lecture is sponsored by the University of Louisville and Department of Pediatrics. It qualifies for one Category I credit.

How-To Computer Seminar

The Chicago Medical School will conduct a seminar, "Choosing and Using a Computer System in a Private Medical Practice," in Chicago at the Downtown Marriott Hotel, March 11 and 12.

The tuition is $295. The course rates 16 CME Category 1 credits. Each additional attendee from the same group is charged $225. The registration fee includes coffee breaks and two lunches.

Registration information from Susan Crabtree, Chicago Medical School, One Chapman Road, P.O. Box 366, Burlington, Ill. 60109—phone (312) 683-2066.

Evansville CME Seminars

St. Mary's Medical Center, Evansville, will conduct CME seminars in February, March and April. Feb. 17 is devoted to an Oncology Seminar. This is Part IV of New Ideas in Oncology. On March 17 the subject is the Annual Mackenzie Seminar on High Risk Obstetrics. The meeting on April 21 will address Medical Confidentiality. Each of the seminars will start at 1 p.m. The correspondent is Dr. W. Thomas Spain at (812) 479-4468.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Behavioral Neurology

Vanderbilt University School of Medicine will conduct its First Symposium on "Behavioral Neurology: Higher Cortical Functions and the Brain" on June 2 to 4, 1983. For full information write to Mrs. Joan Sullivan, Vanderbilt University School of Medicine, Nashville, Tenn. 37212.

Spinal Manipulation

"Current Concepts and Rationale for Spinal Manipulation" is the subject of an all-day CME program at the Red Carpet Hotel and Convention Center in Milwaukee on June 11. The program is directed to physical therapists and physicians. The instructor will be Stanley Paris, director of the Atlanta Back Clinic, who has 20 years experience in physiotherapy of the back. The tuition is $49. Write or phone Mary Jensen, P.O. Box 133-L, Franksville, Wisc. 53126—(414) 886-0116.

Kentucky CME Courses

The University of Kentucky College of Medicine announces the following CME courses, all of which will be held at the Hyatt Regency Hotel, Lexington, Ky.

14th Family Medicine Review, Session II—May 22-27;

Genetic Aspects of Common Genetic and Malformation Disorders—June 2-3;

12th Update in Ob-Gyn—June 8-10.

For additional information, contact Frank R. Lemon, M.D., College of Medicine, University of Kentucky, Lexington 40546—Phone (606) 233-5161.

Breast Cancer

The American Cancer Society National Conference-Breast Cancer-1983 will be held May 19 to 21, at the Boston Sheraton Hotel, Boston. The meeting is rated at 16½ hours Category 1.

Write to Nicholas G. Bottiglieri, M.D., American Cancer Society, 777 Third Ave., New York, N.Y. 10017.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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Additional indications: Replacement therapy. When androgen deficiency is the cause of: male climacteric/eunuchoidism, eunuchism/post-puberal cryptorchidism.

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REFER TO PDR

A Country Doctor of Yesteryear

Samuel C. Waters (1861-1932) of Middletown, Indiana

The following autobiographical sketch of Dr. Samuel C. Waters, an 1881 graduate of Starling Medical College, Columbus, Ohio, appeared in the Middletown (Ind.) News *June 24, 1932, just two days after Dr. Waters died at the age of 71. He had been a member of the Henry County Medical Society 47 years and had practiced in Middletown 52 years.*

IN JUNE, 71 years ago, I was born in Kenton, Ohio. On the day I reached my 16th birthday, I entered the office of Dr. Watt, of that city, to begin the study of medicine.

With three five-month courses of medical college and a diploma and one year of practice in a village in Ohio, I landed in Middletown, Ind., on the day I first heard of the town. Being without money, landing was a necessity.

While waiting for $75 due me from Ohio, I became acquainted with good friends and decided to stay. At that time there were no requirements for the practice of medicine in Indiana. I was not yet 20 years old. Anybody who chose could practice. While Middletown was only half as large then as now, at times there were as many as 10 doctors trying to practice there. Mechanicsburg, four miles away, had as many as seven, Honey Creek three, and Sulphur Springs three.

For seven years I pursued my calling on horseback, most doctors having carts, the more prosperous having sidebar buggies with a span of horses. When about 21 years old, I was asked to amputate a woman's breast, her brother paying me a moderate fee. Ten years later this poor woman, while visiting in town, sent for me and gave me $10 extra, saying that she thought I had not been paid enough. She lived for several years after that.



Photo of Dr. Waters and his dog Toby courtesy of J. N. White, Middletown, Ind.

This operation gave me a local reputation as a surgeon. There were no hospitals closer than Indianapolis, so we doctors had to rely upon ourselves. I saw three poor women die of strangulated hernia because it took too long to get help. Realizing that quick action was necessary in such cases, I decided that this should not occur again and it hasn't. In the years that followed before hospitals became common, I did the common run of surgery. This included major amputations, cataracts, tumors of various kinds, cleft palates, hare-lips, club feet, anal fistulas and hemorrhoids.

Then came the appendectomy era and other abdominal surgery. I saw Dr. Joseph Eastman perform his 40th operation for appendicitis and he assured me he was an authority on this disease. After witnessing him perform this one operation, I assayed one. The patient's wife, father and mother and all their relatives, as well as their old family doctor, objected but in the face of all this my patient willingly and cheerfully crawled up on the kitchen table and was operated on. That patient is now a prominent citizen of Anderson. My second case was a patient of this same old family doctor. Most of these operations were performed on the kitchen table with not too clean surroundings.

Perhaps the most thrilling day and night I ever spent was during a snow storm which made all roads practically

Reprinted by permission from the *Middletown News,* April 8, 1982.

impassable. In answer to a call, I waded through snow drifts for four miles to find a woman suffering from strangulated hernia of three days duration. Upon determining the trouble, I had to wade through snow drifts back to town for my supplies. By the time I returned to my patient, it was dark. In a dirty kitchen with two women holding coal oil lamps and a boy the anesthetic, I resected five inches of gangrenous gut. Happy to say, the woman recovered.

There wasn't much money in these operations but a lot of satisfaction. Later, hospitals became more common and those who could afford it went to specialists. However, I am very proud of my results and think they compare very favorably with some modern ones.

In view of the way surgery is performed at this time, it is hard to understand how in the old days we removed splinters or other foreign bodies from the eye-ball or pulled teeth by the hundred and did other minor surgery without even a local anesthetic and under most unfavorable conditions.

In 1889 I procured Wythe's textbook on surgery and this told how to do aseptic surgery. About that time I had a thigh to amputate. I ran down a chicken in order to get a thigh bone to decalcify and make a drainage tube. There were no gauze sponges at that time, but sea sponges were cleaned by boiling in permanganate solution and then bleached with oxalic acid. While this amputation was in progress, a violent snow storm came up and it was necessary to work by the light of a lantern. The directions in the book were not to change the dressings for 21 days, but I couldn't wait longer than 19. I found the stump healed and the chicken bone had disappeared.

At another time, a lad had blown off his leg at the knee with a shotgun. The yard was so much cleaner than the house that I amputated outside. Next morning, I found the boy with his cot drawn up to the door, shooting at birds with a slingshot.

I have attended 1,200 to 1,500 women in confinement (the first one being when I was 17 years old) and have lost but one case, from puerperal fever. In some families I have been the doctor in confinement for the second and third generations and have held consultation with the third generation of certain doctors.

I have been president of my County Medical Society more often than I have any account of and have held minor offices in other medical societies and the state society. I have also read many papers before the Indiana State Medical Association.

I have initiated the use of many new drugs, among them cocaine, anti-toxin, Salvarsan, ethyl, chloride and adrenaline.

With more than 50 years of practice in this vicinity, it is gratifying to know that I have no eyesores walking the streets of Middletown. I have always considered myself lucky. It has ever been a surprise as well as a satisfaction because of the confidence my people have had in me and the way my friends have stood by me. My friends, too, in the medical profession have always given me their loyal support. Because of all these things, I feel now that just so long as I can work some and play some I want to stay the Country Doctor.

Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	DIPHENHYDRAMINE	DIMENHYDRINATE
Category:	Antihistamine	Antiemetic, Antivertigo
Brand Name:	Benadryl, Parke-Davis	Dramamine, Searle
Generic Name:	Diphenhydramine HCl	Dimenhydrinate
Dosage Forms:	Tablets, Capsules, Elixir, Liquid, Injection	Tablets, Injection, Liquid, Suppositories

	CHLORPHENIRAMINE	CHLORPHENTERMINE
Category:	Antihistamine	Anorexiant
Brand Name:	Chlor-Trimeton, Schering	Pre-Sate, Parke-Davis
Generic Name:	Chlorpheniramine Maleate	Chlorphentermine HCl
Dosage Forms:	Tablets, Injection	Tablets

NEWS NOTES

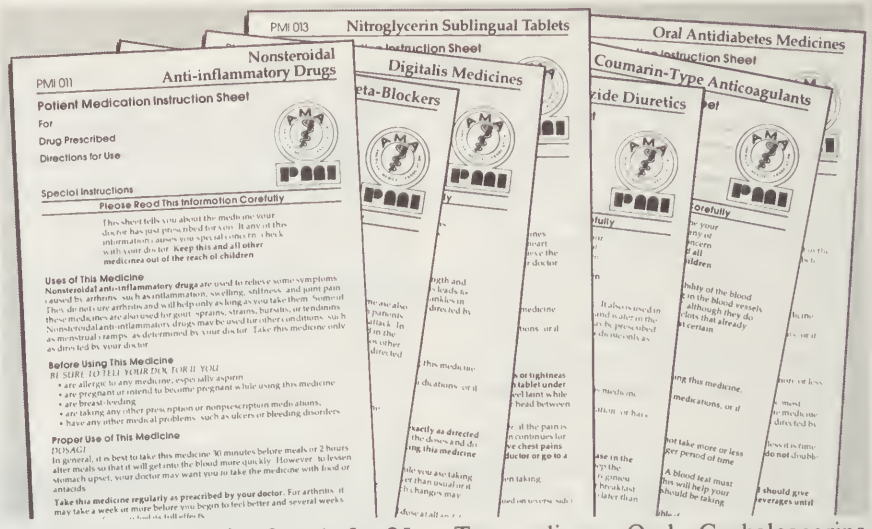
AMA Launches PMI Program

The AMA's new Patient Medication Instruction Program (PMI), designed to foster a better understanding of drug therapy, has been launched and 20 PMI sheets are now available.

Each PMI sheet describes in clear, simple language the purpose of the drug, how it is to be taken, and its possible side effects. Space is provided to write in the dosage and any special instructions for the patient.

The PMI sheet is intended to be given to the patient at the time the prescription is written, rather than at the pharmacy. It serves to reinforce oral explanations and instructions given by the physician and as a take-home reminder for repeated reference during the course of drug therapy.

Eventually, the PMI program will embrace most of the prescription medicines used in medical practice.



PMI sheets are bound in pads of 100; the minimum order is 10 pads for $5, prepaid to AMA, P.O. Box 52, Rolling Meadows, Ill. 60008.

The titles of PMI sheets now available are Furosemide, Thiazide Diuretics, Oral Penicillins, Beta-Blockers, Digitalis Medicines, Coumarin-Type Anticoagulants, Oral Antidiabetes Medicines, Tetracyclines, Oral Cephalosporins, Erythromycin, Nonsteroidal Anti-inflammatory Drugs, Benzodiazepines, Nitroglycerin Sublingual Tablets, Methyldopa, Insulin, Oral Corticosteroids, Cimetidine, Belladonna Alkaloids and Barbiturates, Phenytoin, and Sulfonamides.

Advances Against Meningitis

Reports from a symposium on bacterial meningitis highlight the newest antibiotics as offering greatly increased effectiveness. Third-generation cephalosporins are, in the words of one of the speakers, "a dramatic advance in the therapy of meningitis." Claforan® (cefataxime sodium) was classified as extremely effective against several forms of meningitis. The new agents offer three advantages over traditional therapies: They are less toxic, have good activity against microbes and are effective against rare pathogens that previously were not susceptible to antibiotics.

ACCP Fellowships

The American College of Chest Physicians elevated several hundred physicians and surgeons to Fellowship status at its 48th Annual Scientific Assembly. Included were six members of ISMA—Drs. John S. Fouts and Michael J. Mirro of Fort Wayne, Robert K. Spear and David W. Howard of Evansville, Ronald D. Roberts of Columbus and Kenneth L. Glasser of Zionsville.

Compcare Now in Canada

Compcare, America's largest private provider of alcoholism and drug abuse treatment, has created a Canadian subsidiary. Compcare Canada will offer the same CareUnit substance abuse service to Canadians that it now provides in over 100 locations in the United States.



Infant Nutrition

The Infant Formula Council publishes two pamphlets, each of which are designed to inform parents on the subject of nutrition. "Infant Formula: Questions and Answers" and "Infant Feeding and Nutrition" are obtainable, free of charge, upon request. Multiple copies are available. Both pamphlets are in English or Spanish. Write to Infant Formula Council, Dept. IN, P.O. Box 76841, Atlanta, Ga. 30358.

New Tylenol Packaging

Johnson and Johnson has announced a new triple safety-sealed, tamper-resistant package for Tylenol capsules.

The company also has offered to replace all Tylenol capsules that consumers threw away after the Chicago cyanide poisonings. Customer surveys indicate that more than one-third of Tylenol users threw away the capsules they had. Surveys also show that 77% of Tylenol customers say they will continue with Tylenol in tamper-resistant packages.

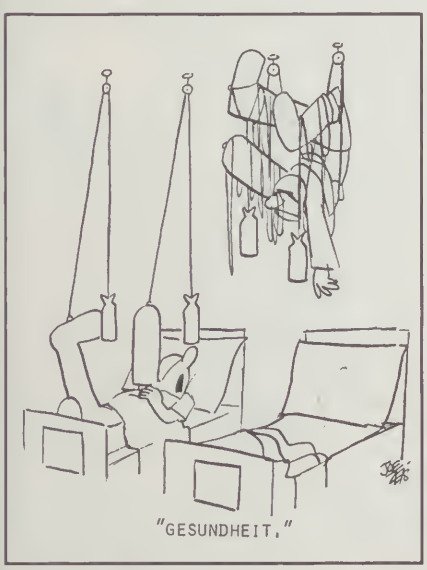
Indiana's Financial Crisis

Legislation passed by the General Assembly during a special session in December hopefully will offset a projected $452 million state deficit for this fiscal year. John W. Walls, president of the Indiana State Chamber of Commerce, says the problem arose in the first place because two not-so-mysterious things happened:

- "The federal government supplied some incorrect information to state officials on the actual condition of the Indiana economy. Because that happened, we were lulled into expecting more in personal income (hence more in tax revenue) than our economy could deliver.

- "The state failed to begin its recovery as predicted. A nonpartisan, nonpaid panel of five of Indiana's best private sector and university economists, using the faulty federal estimates, foresaw a moderate recovery beginning in the second quarter of 1982 (April-June). Obviously, this didn't happen."

The forecast, using the only available figures, "was reasonable at the time it was made," Mr. Walls says. "Frankly, most respected economists anticipated some kind of recovery in 1982. There seem to be positive signs now that the recovery is coming. In any event, those of us who are not economists certainly didn't dispute the experts' predictions."


"GESUNDHEIT,"

Foam Insulation Pamphlet

The American Council on Science and Health has issued a pamphlet concerning the many advantages of urea-formaldehyde foam insulation. Due to possible toxic effects from the improper installation of formaldehyde insulation, the Council emphasizes the importance of approved methods and practices by the building industry. The Council thinks that attempts to ban use of such insulation are premature and unwarranted. Individual copies of the report may be obtained at a cost of $2. The address is 1995 Broadway, New York, N.Y. 10023.

Nutrition Research Award

Dr. Elsie M. Widdowson, a British scientist and researcher in nutrition, has received the second annual Bristol-Myers Award for Distinguished Achievement in Nutrition Research. The $25,000 cash prize is sponsored by Bristol-Myers and its Mead Johnson & Company subsidiary. Dr. Morris Green of Indianapolis, chairman of the Department of Pediatrics, I.U. School of Medicine, is a member of the Selection Committee.

Wood-Burning Stove Hazards

The use of wood for home fuel, in wood-burning stoves or fireplaces, can present safety hazards if precautions are not taken, the American Council on Science and Health warns.

More than 9,000 burn injuries involving heating stoves or fireplaces were treated in hospital emergency rooms last year.

Two types of stove-related burns are common among children: burns from falling against the stove and burns from trying to light it. The first type tends to occur in toddlers, who may not be steady on their feet, and can be avoided by fencing in the stove. The second type of burn occurs more often in older children, and can be prevented by teaching the child never to light or touch the stove, or to do so only in the presence of an adult.

Injuries can also result from using gasoline, kerosene or other flammable liquids to light a stove or fireplace fire.

Injuries also have been reported from equipment used to cut wood. The number of serious chainsaw mishaps, for example, has increased in the past few years.

Statement on Drug Labeling

The Committee on Drugs and Devices of the American Academy of Family Physicians has developed the following statement concerning the use of FDA-approved drugs for indications not covered by the labeling:

"The regulations do not limit the manner in which the physician may use an approved drug. Valid new uses for drugs already on the market are often first discovered through serendipitous observations, subsequently confirmed. Confirmation may take years and without the initiative of the drug manufacturer may never occur. The FDA and drug manufacturer do not practice medicine. For that reason, accepted medical practice often includes drug use that is not reflected in approved drug labeling."

The manufacturer can label, promote and advertise a product only for the use for which it has been established. A physician can use the drug as his own good judgment dictates.


"DO YOU PROMISE TO LOVE, CHERISH, AND PROTECT HER IN SICKNESS AND IN HEALTH AND UNTIL MEDICARE CAN TAKE OVER?"

NEWS NOTES

Here and There . . .

. . . **Dr. Alexander S. Williams** of Gary, a trustee and medical director of the employee health service at St. Mary Medical Center, has received the 1982 Blessed Mary Katherine Kasper Health Care Award "for outstanding health care contributions."

. . . **Dr. John C. Johnson** of Gary, state commissioner for Emergency Medical Services, has been elected to the board of directors, American College of Emergency Physicians.

. . . **Dr. James E. Stephens** of Brazil has been named a diplomate of the American Board of Family Practice.

. . . **Dr. Donald A. Dian** of Bluffton discussed child abuse at a December workshop for teachers at Manchester Junior High School.

. . . **Dr. George C. Rasch** and **Dr. Ronald P. Pavelka** were among the speakers at a Cold Weather Running seminar hosted in December by St. Margaret Hospital, Hammond.

. . . **Dr. George W. Sorrells** of Bedford discussed "Adolescent Substance Abuse" at a December meeting of Orleans High School parents.

. . . **Dr. Kevin J. Murphy,** a Lafayette cardiologist, addressed the November meeting of the Carroll County Heart Association.

. . . **Dr. Leonard J. Green** of Terre Haute has been named a diplomate of the American Board of Obstetrics and Gynecology.

. . . **Dr. Harley P. Palmer,** a Franklin pathologist, has been presented the first Liberty Bell Award of the Johnson County Bar Association as part of a program to recognize non-lawyers for outstanding community service.

. . . **Edna M. Lenfesty, R.N.,** Peru, has become the first non-physician to be named an honorary member of the Miami County Medical Society.

. . . **Dr. Douglas A. Triplett,** a Muncie hematologist, directed a "hemophilia clinic" in December for people having congenital bleeding disorders.

. . . **Dr. Robert W. Burt,** professor of radiology at the Indiana University School of Medicine, discussed the use of radiation in internal medicine as a diagnostic tool during a recent meeting of the Wabash Rotary Club.

. . . **Dr. Glen W. Cartwright** of Lafayette was among the speakers who discussed adolescent problems during a December seminar for parents at Lafayette Home Hospital.

. . . **Dr. Robert C. Beesley** of Martinsville has been reappointed Morgan County health officer.

Dr. Hammer Reappointed

Dr. Armand Hammer, chairman of Occidental Petroleum Corporation, has been reappointed by President Reagan to serve a second term as chairman of the President's Cancer Panel. His reappointment coincides with the awarding of the first of a series of $100,000 prizes, to be given annually by the Hammer Foundation to scientists in the search for a cure for cancer.

Help for Hemophiliacs

Biogen, an international biotechnology company with a subsidiary in Cambridge, Massachusetts, and Teijin, a major Japanese industrial company, have joined to develop the commercial production of Factor VIII by recombinant DNA techniques.

Factor VIII can be produced in a completely pure state. Factor VIII recovered from human blood contains several natural contaminants which are relatively harmless but it may also carry infectious agents such as hepatitis.

The recombinant process produces a pure product and will be capable of producing unlimited amounts of the Factor. When commercial preparations are available, clinical trials will be conducted in Japan.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Akin, Daniel P., New Albany
Baker, Eldon E., Delphi
Benson, Dale S., Indianapolis
Bhangoo, Sukminder S., Richmond
Blazey, Arthur G., Santa Claus
Bowen, Otis R., Indianapolis
Byllesby, Joyce E., Washington
Calhoon, John P., Indianapolis
Chivapruk, Charat, Crown Point
Conrad, Henry W., Lawrenceburg
Cripe, Linda M., Ossian
Dallas, Fred R., Indianapolis
Diotallevi, Gary H., Newburgh
Ellis, William N., Indianapolis
Emkes, Bernard J., Indianapolis
Fischer, Burnell, Hammond
Galup, Luis N., South Bend
Guinigundo, Noli C., Brookville
Haehl, William D., Shelbyville
Jenkins, John E., Indianapolis
Konkle, Amy M., Indianapolis
Lustig, William F., Columbus
Manders, Karl L., Indianapolis
Maus, Ronald T., Kokomo
Meyers, Mark E., Evansville
Myers, Ronald L., Lawrenceburg
Oehler, Robert C., Brazil
Reszel, Paul A., Fort Wayne
Rusche, Henry J., Evansville
Salb, John P., Jasper
Servies, Herschell, Lebanon
Sinn, Charles M., Evansville
Smith, H. Chas., Bluffton
Smith, Steven R., Indianapolis
Song, Yong-Chul, Whiting
Sorak, Katica, Munster
Spurgeon, Charles H., Indianapolis
Swaim, J. Franklin, Rockville
Taylor, Millard R., Howe
Thaker, Bhanushanker A., Clarksville
Williams, Paul A., Stockwell
Witt, Fred W., Warsaw
Woods, Bernard A., Evansville
Yoder, Richard P., Bluffton



When mild to moderate pain is a side effect of "Fitness"

RUFEN®
(ibuprofen)

measures up... at a reasonable cost!

A Single-Entity Pain Reliever As-Good-As or Better-Than Codeine Combinations

"...particularly effective in soft tissue disorders including sports injuries,"[1] Rufen stops pain at the site of injury and inflammation, not at the level of central perception. There is no dulled sensorium, no special need for warnings about driving or cautions about use of machinery. Your patient gets fast, effective pain relief...potent anti-inflammatory action...excellent tolerance...*plus* the exceptional economy that only Rufen offers. Next time one of your patients asks for pain relief, let Rufen show you how it measures up.

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Pioneers in medicine for the family

See next page for brief summary of prescribing information.

Measure RUFEN® (ibuprofen) against "standard" mild to moderate pain

Dental pain and episiotomy pain are predictable, reproducible "standards" that make possible objective comparisons of effectiveness of different analgesic agents.

- Measured against 15, 30 and 60 mg doses of codeine phosphate in a double-blind study of 287 patients, 400-mg doses of ibuprofen proved "significantly better than codeine on almost all pain intensity, degree of relief and duration of analgesia parameters."[2]
- Measured against a propoxyphene-acetaminophen combination for pain relief after 3rd molar extractions, ibuprofen proved equally effective and caused fewer side effects. Ibuprofen was associated with faster recovery, evidenced by more rapid reduction of trismus and return to normal function.[3]
- Measured against post-episiotomy pain in 30 patients, "ibuprofen was effective in treating the swelling as well as pain...during the first and worst days. Therefore, it is not only the analgesic but also the anti-inflammatory effect of ibuprofen that are the beneficial factors..."[4]

Measure RUFEN® (ibuprofen) against any mild to moderate pain

RUFEN	Acetaminophen + codeine combinations
• single-entity, peripheral-acting analgesia	• combined drugs act partly through central opioid pathways
• powerful treatment of both pain and inflammation	• virtually no treatment of the inflammatory component
• better tolerated than aspirin	• combined side effects of two drugs—warning required about driving or operating machinery; possible respiratory depression with alcohol, tranquilizers, other common medications
• no narcotic risk, red tape, records	• narcotic precautions required
• matchless economy in a modern NSAID	



References:

1. Hart FD, Huskisson EC, Ansell BM in Hart FD (editor): Drug Treatment of the Rheumatic Diseases, 2nd Ed, Adis Press, Balgowlah, Australia, 1982, p. 30.
2. Rondeau PL, Yeung E, Nelson P: Canad Dent Assoc J 46:433-439, 1980
3. Selwyn P and Giles AD: Br Jrl of Clin Practice, Supplement 6, Safe and effective analgesia following dental surgery: A comparison of brufen and distalgesic. Pg 87-90. 1980.
4. Taina E: Curr Med Res Opinion, 7:423-428, 1981.

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Shreveport, LA 71106
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And Rufen® Measures Up Best

RUFEN® (ibuprofen) Tablets

INDICATIONS AND USAGE: Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in the long-term management of these diseases. Safety and effectiveness have not been established for Functional Class IV rheumatoid arthritis.

Relief of mild to moderate pain. Treatment of primary dysmenorrhea.

CONTRAINDICATIONS: Patients hypersensitive to ibuprofen, or with the syndrome of nasal polyps, angio-edema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory drugs (see WARNINGS).

WARNINGS: Anaphylactoid reactions have occurred in patients hypersensitive to aspirin (see CONTRAINDICATIONS). Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration, perforation, or gastrointestinal bleeding can end fatally, however, an association has not been established. Rufen should be given under close supervision to patients with a history of upper gastrointestinal tract disease, and only after consulting the ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be attempted. If Rufen must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If developed, discontinue Rufen and administer an ophthalmologic examination.

Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy, this therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: *Coumarin-type anticoagulants.* The physician should be cautious when administering Rufen to patients on anticoagulants.

Aspirin. Concomitant use may decrease Rufen blood levels.

PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS: Incidence greater than 1%. Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4 to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence). Central Nervous System: dizziness*, headache, nervousness. Dermatologic: rash* (including maculopapular type), pruritus. Special Senses: tinnitus. Metabolic: decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS). *Incidence 3% to 9%.

Incidence less than 1 in 100. Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. Central Nervous System: depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma. Dermatologic: vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome and alopecia. *Special Senses:* hearing loss, amblyopia (blurred and/or diminished vision, scotomata and/or changes in color vision) [see PRECAUTIONS]. Hematologic: neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura eosinophilia, decreases in hemoglobin and hematocrit. Cardiovascular: congestive heart failure in patients with marginal cardiac function, elevated blood pressure. Allergic: syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasms (see CONTRAINDICATIONS). Renal: acute renal failure in patients with preexisting significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria. Miscellaneous: dry eyes and mouth, gingival ulcers, rhinitis.

Causal relationship unknown. Gastrointestinal: pancreatitis. Central Nervous System: paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri. Dermatologic: toxic epidermal necrolysis, photoallergic skin reactions. Special Senses: conjunctivitis, diplopia, optic neuritis. Hematologic: bleeding episodes. Allergic: serum sickness, lupus erythematosus syndrome, Henoch-Schonlein vasculitis. Endocrine: gynecomastia, hypoglycemia. Cardiovascular: arrhythmias (sinus tachycardia, bradycardia, and palpitations). Renal: renal papillary necrosis.

OVERDOSAGE: Acute overdosage, the stomach should be emptied. Rufen is acidic and excreted in the urine, alkaline diuresis may benefit.

DOSAGE AND ADMINISTRATION: Rheumatoid arthritis and osteoarthritis, including flareups of chronic disease: Suggested dosage 400 mg t.i.d. or q.i.d.

Dysmenorrhea: 400 mg every 4 hours as necessary.

Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for the relief of pain. *Do not exceed 2,400 mg per day.*

CAUTION: Federal law prohibits dispensing without prescription.

CME QUIZ

Digital Vascular Imaging

CONTINUED FROM PAGES 113-116

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. For reproducibly high quality DVI images the injection should be performed into the:
   a. antecubital vein
   b. basilic vein
   c. subclavian vein
   d. superior vena cava

2. The primary computer processing performed in DVI is:
   a. temporal subtraction
   b. energy subtraction
   c. hybrid subtraction
   d. analog subtraction

3. All of the following are advantages of DVI *except:*
   a. safer than arteriography
   b. less expensive than arteriography
   c. better spatial resolution than arteriography
   d. routinely performed on outpatients

4. All of the following are disadvantages of DVI *except:*
   a. motion degrades the image
   b. overlap of vessels can be a problem
   c. takes longer to perform than arteriography
   d. less spatial resolution than arteriography

5. All of the following are clinical uses of DVI *except:*
   a. screening examination for hypertension
   b. screening examination for bilateral lower extremity claudication
   c. definitive examination for carotid stenosis
   d. follow-up examination of renal artery by-pass grafts

6. The widest use of DVI currently is in the evaluation of:
   a. thoracic aorta and cervical carotid arteries
   b. abdominal aorta and renal arteries
   c. extremities
   d. pulmonary arteries

7. Concerning cardiac DVI:
   a. EKG gating will reduce artifacts from heart motion
   b. ejection fraction and wall motion studies will not be possible
   c. coronary arteries are currently reliably imaged
   d. acquisition rates up to 30 frames per second are not possible

8. Which type of motion does *not* significantly affect image quality:
   a. movement on the table
   b. breathing
   c. pulsation of arteries
   d. peristalsis in abdominal imaging

9. The machine that converts the image from a picture to a series of numbers is:
   a. image intensifier
   b. TV camera
   c. analog to digital converter
   d. multiformat camera

10. The field size of DVI images is determined by:
    a. image intensifier
    b. TV camera
    c. analog to digital converter
    d. multiformat camera

January CME Quiz Answers

Following are the answers to the CME quiz that appeared in the January 1983 issue of THE JOURNAL: "Improving Patients' Compliance with Therapeutic Regimens," by Stuart J. Cohen, Ed.D.

1. c	6. b
2. c	7. c
3. a	8. b
4. d	9. a
5. d	10. d

Answer sheet for Quiz: (Digital Vascular Imaging . . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

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OBITUARIES

Joseph McKinley, M.D.

Dr. McKinley, 62, a Lafayette urologist, died Nov. 16 at the Indiana University Medical Center, Indianapolis.

He was a 1944 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Lowell J. Hillis, M.D.

Dr. Hillis, 71, a Logansport physician, died Nov. 18 at Memorial Hospital in Logansport.

He was a 1937 graduate of Indiana University School of Medicine.

Dr. Hillis was a former ISMA trustee and a former president of the Cass County Medical Society. He was a former chief of staff at Memorial Hospital and was a fellow of the International College of Surgeons. He was in charge of the Cass County-Logansport health department from 1953 until 1979.

Mordecai M. McDowell, M.D.

Dr. McDowell, 74, a Vincennes internist, died Nov. 19 at Good Samaritan Hospital, Vincennes.

He was a 1933 graduate of Indiana University School of Medicine and was a veteran of World War II.

Harvey E. White, M.D.

Dr. White, 72, a retired Farmland physician, died Nov. 18 at Ball Memorial Hospital, Muncie.

He was a 1936 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. White served as an ISMA delegate in 1959, representing the Randolph County Medical Society.

Robert F. Golding, M.D.

Dr. Golding, 73, a Merrillville anesthesiologist, died Nov. 5.

He earned his M.D. degree in 1935 from the University of Santo Tomas, the Philippines.

Dr. Golding was a member of the Philippine Medical Association and a fellow of the American College of Anesthesiologists.

Raymond M. Rice, M.D.

Dr. Rice, 80, a former board member of Eli Lilly and Company, Indianapolis, died Nov. 22 at his winter home in Naples, Fla.

He was a 1929 graduate of the University of Nebraska College of Medicine. He served with Lilly from 1936 to 1966, most recently as group vice president for science and medicine.

Dr. Rice was a former assistant professor of medicine at Indiana University School of Medicine. His memberships included the American Rheumatism Association, American Federation for Clincial Research, American Association for the Advancement of Science, and the Association of American Medical Colleges.

Orville M. Graves, M.D.

Dr. Graves, 90, a retired Princeton physician and surgeon, died Oct. 24.

He was a 1921 graduate of Indiana University School of Medicine.

Dr. Graves became a member of the ISMA Fifty Year Club in 1971.

George A. Carberry, M.D.

Dr. Carberry, 61, a Merrillville physician, died July 15, 1982.

He was a 1946 graduate of Jefferson Medical College, Philadelphia.

Dr. Carberry was a fellow of the American College of Surgeons and a member of the American Society of Abdominal Surgeons. He was certified by the American Board of Obstetrics and Gynecology.

Gerald F. Kempf, M.D.

Dr. Kempf, 90, formerly a member of the Parke-Vermillion County Medical Society, died Nov. 23. In recent years, he had lived in Lebanon; Ohio.

He was a 1928 graduate of Indiana University School of Medicine and was a World War I Army veteran.

Dr. Kempf was associated with the Eli Lilly clinical research laboratories from 1929 to 1946. He was a former ISMA delegate and was a member of the Central Society for Clinical Research.

James M. Hall, M.D.

Dr. Hall, 64, a South Bend ophthalmologist, died Nov. 6 at St. Joseph's Medical Center.

He earned his M.D. degree in 1946 from the University of Illinois. He was a Navy veteran of World War II.

Dr. Hall was certified by the American Board of Ophthalmology and was a member of the American Academy of Ophthalmology.

John W. Woner, M.D.

Dr. Woner, 72, a Linton physician, died Nov. 22 at Greene County General Hospital.

He was a 1933 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Woner had been Franklin College's football team physician 25 years. His memberships included the American Fracture Association. He served as an ISMA delegate in 1970.

Monico M. Valencia, M.D.

Dr. Valencia, 67, a Lake Station physician and surgeon, died Nov. 28 at Porter Memorial Hospital, Valparaiso.

He earned his M.D. degree in 1941 from the University of Santo Tomas, the Philippines.

Dr. Valencia was a former staff physician at U.S. Steel's Gary Works. He was a member of the American Society of Abdominal Surgeons.

John L. Ferry, M.D.

Dr. Ferry, 71, director of medical affairs at St. Catherine Hospital in East Chicago, died Nov. 28 at his home in Highland.

He was a 1936 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Ferry, who was certified by the American Board of Internal Medicine, was a fellow of the American College of Physicians. He was a member of the American Society of Internal Medicine, the American Diabetes Association, and served as senior consultant at the Whiting Clinic.

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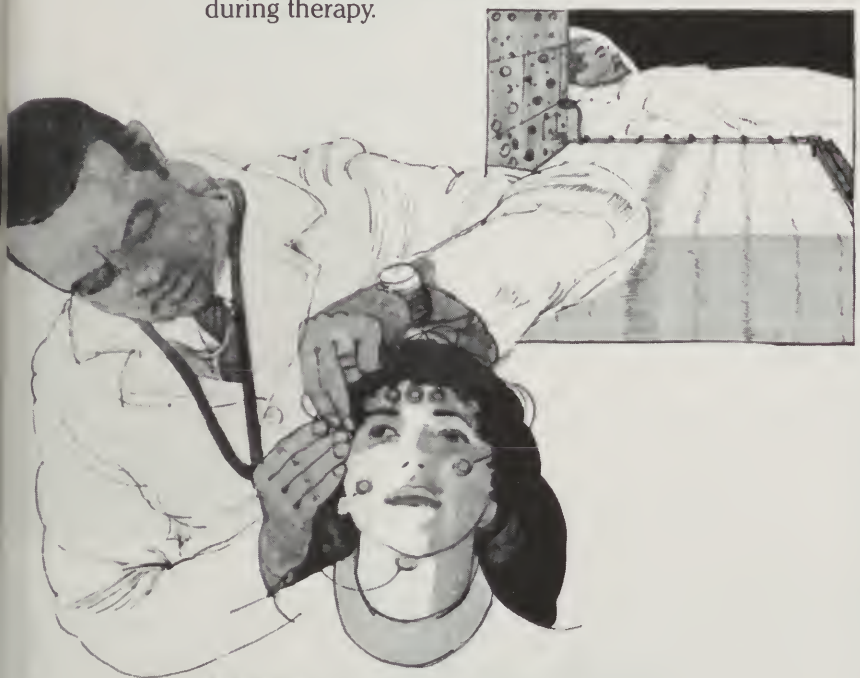
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References: 1. Kales A *et al: J Clin Pharmacol 17*:207-213, Apr 1977 and data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Kales A: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **3.** Zimmerman AM: *Curr Ther Res 13*:18-22, Jan 1971. **4.** Kales A *et al: JAMA 241*:1692-1695, Apr 20, 1979. **5.** Kales A, Scharf MB, Kales JD: *Science 201*:1039-1041, Sep 15, 1978. **6.** Kales A *et al: Clin Pharmacol Ther 19*:576-583, May 1976. **7.** Kales A, Kales JD: *Pharmacol Physicians 4*:1-6, Sep 1970. **8.** Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc 27*:541-546, Dec 1979. **9.** Dement WC *et al: Behav Med 5*:25-31, Oct 1978. **10.** Vogel GW: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **11.** Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington, DC, May 3-7, 1971. **12.** Pollak CP, McGregor PA, Weitzman ED: The effects of flurazepam on daytime sleep after acute sleep-wake cycle reversal. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, June 30-July 4, 1975. **13.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

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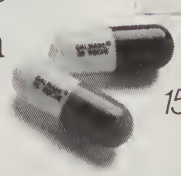
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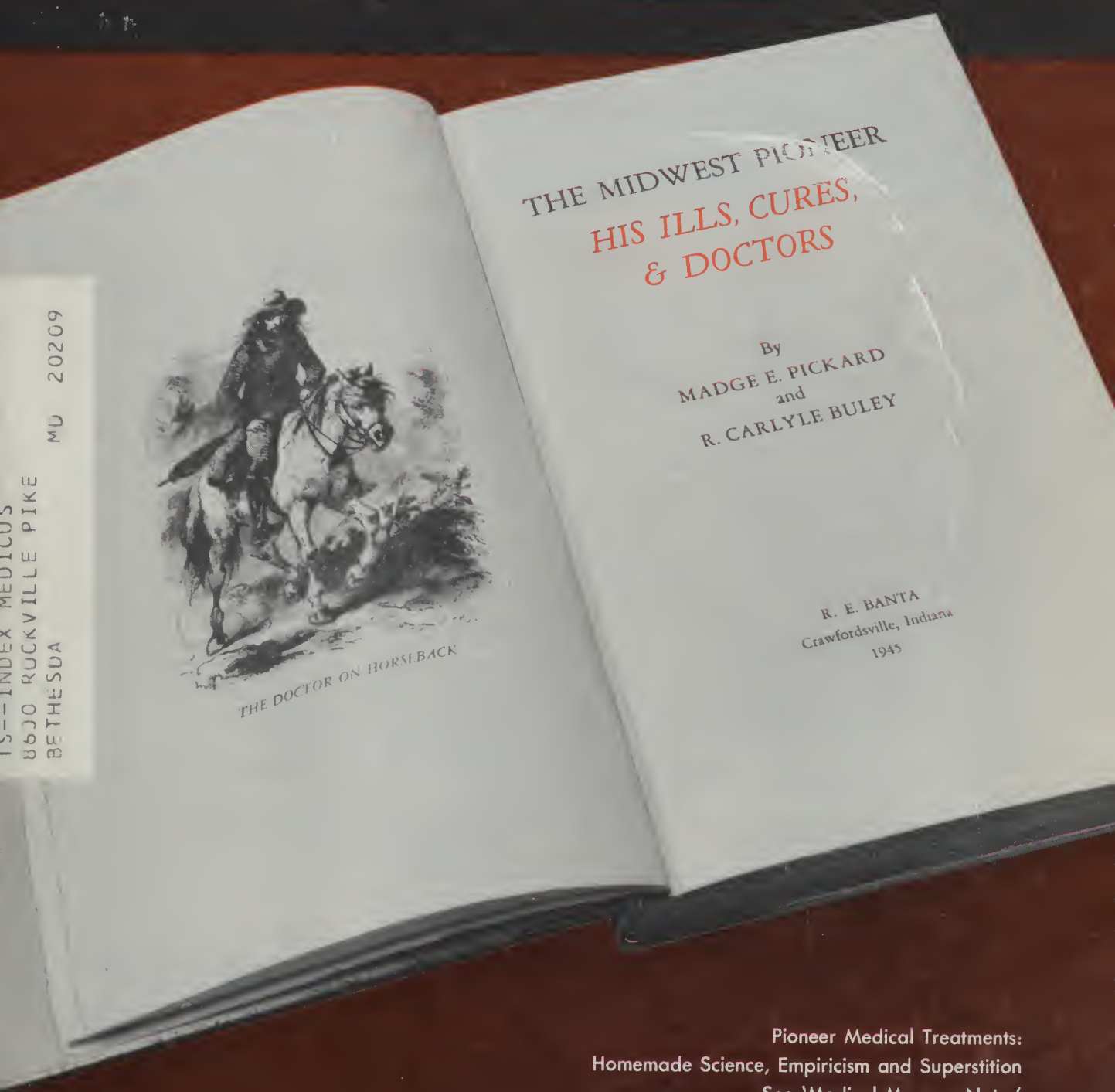
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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis



This month's cover illustration shows the title page and frontispiece of a classical volume, *The Midwest Pioneer—His Ills, Cures, and Doctors,* by Madge E. Pickard and R. Carlyle Buley. The book was published in 1945 by R. E. Banta at Crawfordsville and has long been out of print. The copy illustrated on the cover was given to the Museum by Mr. Hubert H. Hawkins.

The book is dedicated "To the Pioneer Doctor who boldly faced the wilderness; and to the Pioneer who bravely faced the Doctor." As described in the Foreword, "The book is a by-product of more extensive work in the field of middle western history . . ."

Katherine McDonell, Museum Curator and Indiana Medical Historian, recently wrote the following column in the Indiana Historical Society's Newsletter (#50, Nov. 1982):

"The recent acquisition of the library of Midwest medical historian Madge E. Palmer (nee Pickard) has greatly enhanced the Indiana Historical Society's collection of early nineteenth century medical works . . . . Her library consists of a small manuscript collection and 33 books, most of which are early to mid-nineteenth century home remedy books.

"During the first half of the nineteenth century many individuals were not treated by doctors. Americans turned to home remedies for a variety of reasons. Some lived in frontier regions where professional medical assistance was unavailable. Others disliked the harsh treatments of bloodletting and purging and turned to milder, domestic remedies. Furthermore, some women believed visiting a doctor (especially for strictly female problems) violated their delicacy.

"Three different types of domestic medical works met the needs of these individuals. First, some books were designed for those too far from a doctor's care but were not meant to replace the services of a physician. Secondly, there were those which advocated the harsh treatments employed by doctors but claimed the doctor's service unnecessary. Finally, there were those written by practitioners who scorned physicians' cures and espoused milder, often botanic remedies. All three types of home remedy books are represented in the Palmer collection.

The Midwest Pioneer—His Ills, Cures, and Doctors

"Among the better known works in Mrs. Palmer's library are William Buchan's *Domestic Medicine or A Treatise on the Prevention and Cure of Disease by Regimen and Simple Medicine;* John C. Gunn's *Domestic Medicine, or Poor Man's Friend;* and Samuel Thomson's *A New Guide to Health.*

"The works of Gunn and Thomson were revised, and even pirated, by other domestic medical book authors. A number of these home remedy books were published in the Midwest, and the Palmer collection contains some of these works including: Samuel Robinson's *A Course of Fifteen Lectures, on Medical Botany, Denominated Thomson's New Theory of Medical Practice* (Columbus, Ohio, 1829); A. Weyer's *The Family Physician, or Poor Man's Friend, and Married Lady's Companion* (St. Clairsville, Ohio, 1831); and Horton Howard's *An Improved System of Botanic Medicine, Founded on Correct Physiological Principles . . .* (Cincinnati, 1852). Several home remedy books designed especially for women are also in the Palmer collection such as *The American Lady's Medical Pocket-Book and Nursery Advisor* (Pittsburgh, c. 1833) and J. H. Pulte's *Woman's Medical Guide: Containing Essays on the Physical, Moral and Educational Development of Females, and the Homeopathic Treatment of Their Diseases in All Periods of Life . . .* (Cincinnati, 1853).

"A variety of other forms of alternative medicine also abounded during the first half of the nineteenth century including homeopathy, hydropathy, eclecticism, and Indian medicine. Homeopathic physicians believed that whatever drug caused the symptoms of a certain disease in a healthy person would cure the same disease in a sick person. Hydropathy, as its name implies, consisted of a variety of water cures. Eclecticism, founded by Wooster Beach in 1829, borrowed from all medical systems, although most of the treatments were botanic. "Indian doctors" relied on empiricism and employed only indigenous roots and herbs to cure disease. Books representative of all these competing systems of medicine are also included in the Palmer collection.

"Mrs. Palmer's donation to the Society library also contains the manuscript lecture notes of W. A. Ashton, who attended the Eclectic Medical Institute of Cincinnati from 1852 to 1853. Ashton's full-color anatomical drawings, clippings, and a ticket which admitted him to the dissections at the medical school are also in the collection."

WHAT'S NEW?

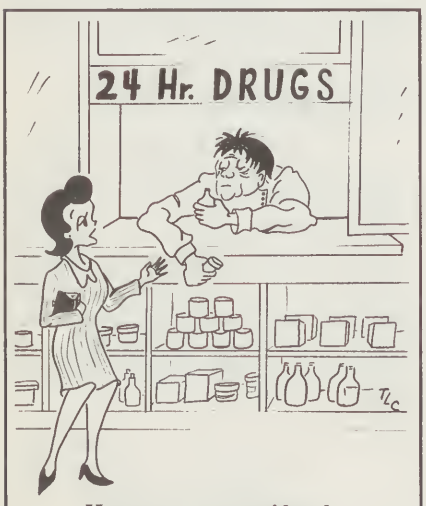
News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Gyn-O-Tek, Inc. introduces the "Vagitone," a battery-powered electronic muscle-stimulating device that corrects myasthenic conditions of the pubococcygeus muscle for the relief of stress urinary incontinence and types of sexual dysfunction. The therapeutic effect is similar to that achieved by Kegel exercises.

Gaymar Industries has a new wheelchair cushion for protecting against pressure sores. It provides a staggered support beneath the patient, providing equal weight distribution. The cushions fit all standard size wheelchairs, are made of a soft durable vinyl and come with a washable cloth cover.

Litton Medical Electronics has published a new, eight-page brochure, "Litton Lets You Care," which covers three advanced technology monitors for bedside use. The brochure also shows Litton Medivision units for bedside or OR uses, and several central stations.

Laser Industries has developed a new surgical laser instrument, the Microscan 771 Micro-Processor controlled laser scanner, which enables precise uniform removal of irregularly shaped tissue volumes in neurosurgery, gynecology and plastic surgery. The company also has new "Sharplan" Laparascopes, a new line of laser endoscopic instruments for use in infertility microsurgery.



Have you ever considered taking on an assistant?

Hewlett Packard announces disposable electrodes for ECG technique. The adhesive quality provides better patient contact with stable traces and less baseline wander. Result is increased accuracy and virtual elimination of retakes because of electrodes falling off. The time required for preparation and clean up is less.

Del Mar Avionics announces a new instrument system for detecting and measuring gastroesophageal reflux over 24 hours. Model 700 Gastroreflux™ Recorder and Model 7700 Data Analyzer enables the physician to determine the frequency and duration of acid exposure to the esophageal mucosa with direct correlation to patient symptom.

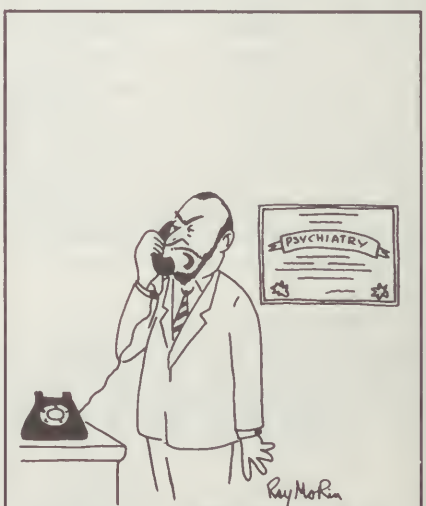
Winthrop Laboratories has FDA approval for marketing reformulated Talwin 50 tablets to include naloxone. This potentially eliminates the misuse of Talwin 50 in combination with tripelennamine. The new product is designated as Talwin® Nx[iv]. The misuse of Talwin tablets in combination with tripelennamine by addicts was accomplished by intravenous injection. The addition of naloxone does not alter the effect of Talwin when administered orally but negates the "high" when used intravenously.

A new book on how to collect overdue accounts is available free to doctors. *Collection Guide for the Doctor and Office Assistant* may be obtained by writing to Control-o-fax, 3070 W. Airline Highway, P.O. Box 778, Waterloo, Iowa 50704.

Parke-Davis is introducing Nitrostat Ointment for treatment of acute attacks of angina. With Nitrostat Ointment, Parke-Davis becomes the only firm offering a nitroglycerin product in each major dosage form—sublingual tablets, sustained release capsules, ampoules for IV use and a topical ointment. The ointment contains 2% nitroglycerin and is formulated to provide controlled release of nitroglycerin, which gives up to eight hours of angina relief.

S. S. Pierce Company, famous food retailers, have converted their entire line of canned vegetables to Libby's Natural Pack products, which are free of salt and sugar. The Natural Pack line is displayed in markets alongside regular canned vegetables rather than in special diet sections. It has been demonstrated that neither added salt nor added sugar are necessary in preserving food when canned properly. The result is vegetables that taste like fresh ones.

COBE Laboratories announce FDA approval for marketing the first membrane-based therapeutic plasma exchange (TPE) system. It was developed to treat such conditions as Goodpasture's syndrome, myasthenia gravis, familial hypercholesterolemia, multiple myeloma, multiple sclerosis, and systemic lupus erythematosus. The system contains safety, monitoring and convenience features more advanced than on any system previously available.



"I've told you time and again, Harriet, I do NOT want a cuckoo clock for my office."

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Vol. 76, No. 3
MARCH 1983
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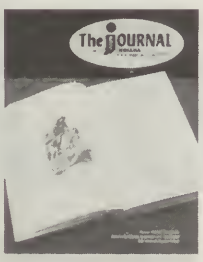
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ABOUT THE COVER

The Medical Museum has acquired another classical volume, the title page and frontispiece of which appear on the cover. For a look at 19th century "home remedy" books, see Medical Museum Notes, page 159.

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EDITORIALS

Diet and Bone Health

Osteoporosis has been rccognized as a fairly common condition for many ycars. Recently, it has been the subject of increased interest and discussion. One reason is that it is age related. More and more people are living longer and more people develop osteoporosis.

In women the loss of bone tissue is accelerated at menopause. Small doses of estrogen aid in slowing the wastage of bone. Because of the association of estrogen treatment and the development of uterine malignancy, however, postmenopausal estrogen is prescribed with considerable caution.

Normal bone metabolism involves two processes. The building process results in new bone tissue and at the same time the bone is losing substance. The ratio between the two processes determincs whether the bone is gaining or losing substance.

The building process dominates the scene during the first 30 to 35 years of life. After 35 more bone is absorbed than is created. The result is osteoporosis.

The etiology is miscellaneous. Racial, genetic, hormonal, physical and nutritional factors are mentioned. No effective prophylaxis is known. Symptoms develop slowly and are troublesome in the latter decades.

Bone pain and fractures, especially of the vertebrae, distal radius, and hip are common complications. Treatment is symptomatic. In fact, variability of the acknowledged etiologic factors as to the effect they exert on the bone metabolism and upon each other is so great as to eliminate dietary intake as a practical approach to reversal of the absorption process.

Calcium is the principal metabolite concerned. However, the effect of phosphorus, vitamin D, protein, lactose, and fiber on calcium bio-availability and the importance of these substances and their interactions have been the subject of many research studies.

More and more research is needed and will be pursued. In the meantime, it appears that calcium intake should be emphasized, probably because that one factor is the one most easily dealt with.

It is evident that a definitely low calcium intake actually increases the loss of bone tissue. On the other hand, elevated intakes seem to reduce calcium loss out of proportion to that which is expected.

Eight hundred milligrams was once considered the Recommended Daily Allowance. The latest scoop is that 1,000 mg. should be the goal of the general adult population. Estrogen-deprived postmenopausal women and all osteoporotic patients are advised to support an intake of 1,500 mg. daily.

Update on AIDS Outbreaks

An average of 28 new cases of Acquired Immune Deficiency Syndrome (AIDS) is being reported each month in New York City, where a total of 425 such cases had been reported by Nov. 24, 1982. That figure represents about half of the cases nationally.

Seven to 10 of the cases each month occur in patients with Kaposi's sarcoma, while the others have opportunistic infections. Twenty-four of the 425 cases were in women.

Among the men affected, 69% are identified as homosexual, 17% as heterosexual and 9% as bisexual. Most cases appear in the previously identified risk groups: homosexual men, Haitians, and intravenous drug users. The majority of non-Haitian heterosexual patients are in the intravenous drug group.

AIDS has been described in four hemophiliac patients nationwide, but no hemophiliac patients have been seen in New York City.

Epidemiological evidence continues to point to an infectious agent that may be transmitted in blood and body secretions, similar to hepatitis B. Precautions are advised for hospitalized patients to prevent nosocomial spread.

The Center for Disease Control is investigating all cases involving persons who do not appear to belong to the risk group. Some reports have been received concerning unexplained immunodeficiency syndromes in children. These are being investigated carefully.

'Yes, It's Me—I'm Guilty'

From John Foster, editor, "Facilitator," publication for the Indiana Society for Hospital Education and Training Inc.:

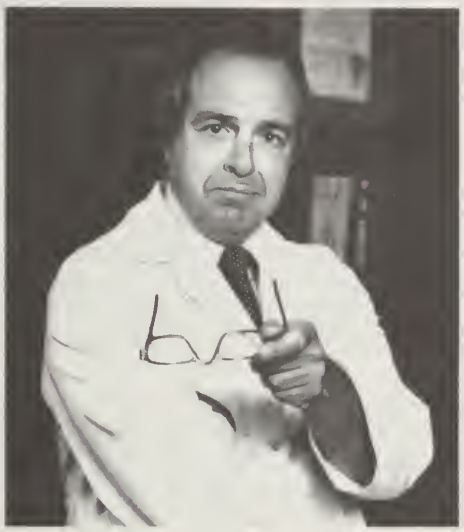
"I can't stand it any longer—it's me—I'm guilty—I did it. I listened to your demands for more of everything and I supplied them. You wanted more and better educated people to take care of you and I supplied them. You wanted new and higher levels of care and I brought them to you.

"The pressure to create bright beautiful facilities became a goal for you and I responded. You wanted more time in life and I gave it to you. You wanted me close by—and you wanted me to be ready for anything at any time—and I am. You wanted jobs and I provided them. You wanted to sell me new technologies and I bought them. You wanted me to pull you into this life and you want me to gently caress your hand as you leave it, and I do.

"And yes, it costs. It costs a lot more than you like and much more than I like—and I will continue to create the best possible system for you to use. And I will always be aware of the resources I consume and the financial burden I contribute to—But I will be here—It's me — I did it — I'm guilty. — Your American Healthcare System."

Reprinted with permission of the author and of "Harmony," January 1983, the newsletter of the Indiana Hospital Association.

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Hospital Cost Containment

Guest Editorial

THE HIGH COST of health care has been a concern of federal and state governments, Blue Cross and Blue Shield, and other third-party payers. Blue Cross and Blue Shield in some states has a radio spot telling listeners the high cost of insurance can in part be attributed to over-utilization or misuse of health care, e.g., visits to emergency rooms instead of doctors' offices.

Cost containment is a real issue that must be dealt with if Americans are going to be able to afford health care in the future.

In the 1970s, health care planning legislation was enacted that created Health Systems Agencies (HSAs). These groups were to review proposals for capital expenditures for additional beds, new hospitals and equipment. Based on their study of beds and services within an area, the HSA could grant or deny a certificate of need (CON). If a facility went ahead with its proposal without the CON, it would be prevented from participating in federally sponsored programs such as Medicare or Medicaid.

This program, which has not been entirely successful, is being phased out by the Reagan Administration. However, this has not prevented some states from applying cost containment strategies of their own.

Minnesota and Michigan are two states that are still trying to do something about their excess beds. Space does not permit a complete review of each situation, but we will highlight some facts (see *Private Practice*, August 1982, and *Medical Economics*, April 26, 1982).

After reviewing their situations, each state believed it had an excess of hospital beds. In Michigan it was decided the HSAs could plan the bed reductions. In Minnesota (or at least in the Twin Cities area) the Metropolitan Health Board's Viable Task Force recommended that the reduction be 2,000 beds and be accomplished by closing whole hospitals and "the local hospital trustees should develop a plan to reduce the excess hospital capacity and submit it to the health boards."

In Michigan a complex situation resulted from different court rules because the Detroit area was going to carry a lot of the reduction as the plan was viewed. The HSA was told to draw up another plan, but the court did reinstitute: "Denial of CON to hospitals 'not in compliance' with a bed reduction plan." This means that the hospitals will have to remove beds or be prevented from purchasing anything that costs over $150,000.

The second plan was introduced, but the hospitals went back to court for a restraining order so the health department could not implement its plan. While the health department cannot force the removal, it still will not grant a CON if the hospital does not follow a plan of reduction. It would appear that 1983 is going to be a year of continuing struggle between the health department and some Michigan hospitals.

In the Twin Cities area, problems arose after a reduction plan that called for various phases was under way. A report was released by the Citizens League that argued "regulatory efforts to contain costs had not been effective" and the report "advanced a detailed strategy for restricting the health care system along competitive lines."

These competitive lines were more price disclosure from health care providers, a capping of the tax exclusion for employee health benefits and removal of the CON. This was viewed as a step in the right direction and the health board is to "spur more competition among hospitals and allow the market place to decide which ones aren't needed" and the board will develop "public policy recommendations for achieving a more price competitive health care system."

These situations are probably not dissimilar from what other states are undergoing. The overbedding of a state and the high cost of health care are not situations that have arisen overnight. They are political and emotional situations at the same time. No hospital wants to close its doors and, since the hospitals are basically in competition with one another, they all want to be able to provide the same or better services.

The regulations have not worked for the most part because the law did not really have any "teeth." The CON could be obtained in many instances by going around the HSA, which might have denied it. Whether the competitive approach is going to work only time will tell.

We do believe that something must be done or we won't be able to afford the hospitals. From what we have been told, debt amortization is about 50% of the hospital bed costs—i.e., if the room rate is $200, then about $100 is needed for debt amortization. Another aspect of this situation is advancing technology. Many hospitals have CT scanners, but there is a new body scanner that costs over a million dollars. Surely it's not needed in all hospitals, but who is going to decide which one gets it?

If hospitals don't want regulation, then they need to come together and develop plans to reduce beds, services and costs. If not, several events may take place—we will not be able to afford hospitalization, hospitals will go broke, or some new form of health care will arise.

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Labor Leaders: 'Friends' of the Jobless

Commentary



RICHARD L. LESHER
President
U.S. Chamber of Commerce

AFL-CIO President Lane Kirkland thinks he's got it made. Unemployment is above 10% for the first time since the days of President Roosevelt, and Kirkland hoped that would trigger an electoral bloodbath for supporters of President Reagan's economic policies in the November elections.

What he won't tell you, and you may not hear elsewhere, is that the AFL-CIO as much as any organization in the country is responsible for double-digit joblessness.

It may be presumptuous for those fortunate to be employed to put ourselves in the position of the unemployed. But perhaps the jobless worker should ask a question: Speeches and statements aside, have the past actions and policies of Kirkland and other union officials helped create jobs or destroyed jobs? Regretably, the answer must be the latter.

Spearheaded by Kirkland's AFL-CIO, many union leaders have contributed to chronic unemployment in two major ways. First, they have pushed many wage and benefit increases far beyond commensurate increases in output. This has priced whole industries out of the world marketplace, pushed up inflation and interest rates, and eliminated thousands of jobs. Even today, a rash of strikes and refusals to make meaningful concessions in exchange for fewer layoffs must make us question the commitment of the labor leadership to keep as many workers on the job as possible. Senior workers survive, with vacations and perks intact, but what about younger workers and minorities who are the last hired and the first fired?

The other way that many of our labor leaders have contributed to unemployment is less obvious. The fact is that organized labor has been one of the chief influences behind the wild growth of social welfare programs, the federal bureaucracy, and government intervention in our private enterprise economy. These policies have drained job-producing capital from consumers, small business and corporations in a variety of ways. In the 1970s alone, the federal establishment nearly tripled this drain in the form of runaway spending, taxes, debt and regulation. The effect on economic growth, and therefore on jobs, has been devastating.

But there is more to this story. Taken together, the unlimited growth of jobless benefits and welfare programs has made unemployment a more attractive alternative.

Please don't misunderstand. I am *not* suggesting that many of the unemployed don't desperately want to work. Nor am I suggesting that the government does not have a responsibility to protect those individuals from destitution. But growing numbers of jobless Americans are discovering that they can do better on unemployment and welfare benefits during layoffs than if they accepted lower-paying jobs to tide them over. A recent University of Chicago survey showed, for example, that in 24 states, a poverty level family could be better off on welfare than if one of its members continued to work.

I am not taking labor leaders to task for their major contribution to double-digit joblessness simply to point fingers. I am doing so because these same individuals are now asking Americans to return to their pet policies of higher taxes, more welfare, bigger government, and greater inflation. We bought that bill of goods and 10.4% of our fellow Americans are still paying the price.



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INDICATIONS AND USAGE: These preparations are indicated for the treatment of infections caused by susceptible strains of designated microorganisms as follows: Respiratory Tract Infections (e.g., tonsillitis, pharyngitis, and lobar pneumonia) due to *S. pneumoniae* (formerly *D. pneumoniae)* and group A beta-hemolytic streptococci [penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever; Velosef (Cephradine, Squibb) is generally effective in the eradication of streptococci from the nasopharynx; substantial data establishing the efficacy of Velosef in the subsequent prevention of rheumatic fever are not available at present]; Otitis Media due to group A beta-hemolytic streptococci, *H. influenzae,* staphylococci, and *S. pneumoniae;* Skin and Skin Structures Infections due to staphylococci and beta-hemolytic streptococci; Urinary Tract Infections, including prostatitis, due to *E. coli, P. mirabilis, Klebsiella* species, and enterococci *(S. faecalis).*

Note: Culture and susceptibility tests should be initiated prior to and during therapy.

CONTRAINDICATIONS: In patients with known hypersensitivity to the cephalosporin group of antibiotics.

WARNINGS; *Use cephalosporin derivatives with great caution in penicillin-sensitive patients since there is clinical and laboratory evidence of partial cross-allergenicity of the two groups of antibiotics; there are instances of reactions to both drug classes (including anaphylaxis after parenteral use).* In persons who have demonstrated some form of allergy, particularly to drugs, use antibiotics, including cephradine, cautiously and only when absolutely necessary.

Pseudomembranous colitis has been reported with the use of cephalosporins (and other broad spectrum antibiotics); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic use. Treatment with broad spectrum antibiotics alters normal flora of the colon and may permit overgrowth of clostridia. Studies indicate a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin *in vitro.* Mild cases of colitis may respond to drug discontinuance alone. Manage moderate to severe cases with fluid, electrolyte and protein supplementation as indicated. Oral vancomycin is the treatment of choice for antibiotic-associated pseudomembranous colitis

produced by *C. difficile* when the colitis is severe or is not relieved by drug discontinuance; consider other causes of colitis.

PRECAUTIONS: General: Follow patients carefully to detect any side effects or unusual manifestations of drug idiosyncrasy. If a hypersensitivity reaction occurs, discontinue the drug and treat the patient with the usual agents, e.g., pressor amines, antihistamines, or corticosteroids. Administer cephradine with caution in the presence of markedly impaired renal function. In patients with known or suspected renal impairment, make careful clinical observation and appropriate laboratory studies prior to and during therapy as cephradine accumulates in the serum and tissues. See package insert for information on treatment of patients with impaired renal function. Prescribe cephradine with caution in individuals with a history of gastrointestinal disease, particularly colitis. Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. Take appropriate measures should superinfection occur during therapy. Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

Information for Patients: Caution diabetic patients that false results may occur with urine glucose tests (see PRECAUTIONS, Drug/Laboratory Test Interactions). Advise the patient to comply with the full course of therapy even if he begins to feel better and to take a missed dose as soon as possible. Tell the patient he may take this medication with food or milk since G.I. upset may be a factor in compliance with the dosage regimen. The patient should report current use of any medicines and should be cautioned not to take other medications unless the physician knows and approves of their use (see PRECAUTIONS, Drug Interactions).

Laboratory Tests: In patients with known or suspected renal impairment, it is advisable to monitor renal function.

Drug Interactions: When administered concurrently, the following drugs may interact with cephalosporins:

Other antibacterial agents — Bacteriostats may interfere with the bactericidal action of cephalosporins in acute infection; other agents, e.g., aminoglycosides, colistin, polymyxins, vancomycin, may increase the possibility of nephrotoxicity.

Diuretics (potent "loop diuretics," e.g., furosemide and ethacrynic acid) — Enhanced possibility for renal toxicity.

Probenecid — Increased and prolonged blood levels of cephalosporins, resulting in increased risk of nephrotoxicity.

Drug/Laboratory Test Interactions: After treatment with cephradine, a false-positive reaction for glucose in the urine may occur with Benedict's solution, Fehling's solution, or with Clinitest® tablets, but not with enzyme-based tests such as Clinistix® and Tes-Tape®. False-positive Coombs test results may occur in newborns whose mothers received a cephalosporin prior to delivery. Cephalosporins have been reported to cause false-positive reactions in tests for urinary proteins which use sulfosalicylic acid, false elevations of urinary 17-ketosteroid values, and prolonged prothrombin times.

Carcinogenesis, Mutagenesis: Long-term studies in animals have not been performed to evaluate carcinogenic potential or mutagenesis.

Pregnancy: Teratogenic Effects/Impairment of Fertility — Category B: Reproduction studies have been performed in mice and rats at doses up to 4 times the maximum indicated human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cephradine. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

Nursing Mothers: Since cephradine is excreted in breast milk during lactation, exercise caution when administering cephradine to a nursing woman.

Pediatric Use: Adequate information is unavailable on the efficacy of b.i.d. regimens in children under nine months of age.

ADVERSE REACTIONS: Untoward reactions are limited essentially to G.I. disturbances and, on occasion, to hypersensitivity phenomena. The latter are more likely to occur in persons who have previously demonstrated hypersensitivity and those with a history of allergy, asthma, hay fever, or urticaria.

(continued on next page)

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(continued)

The following adverse reactions have been reported following use of cephradine: G.I. — Symptoms of pseudomembranous colitis can appear during antibiotic therapy; nausea and vomiting have been reported rarely. Skin and Hypersensitivity Reactions — mild urticaria or skin rash, pruritus, joint pains. Blood — mild transient eosinophilia, leukopenia and neutropenia. Liver — transient mild rise of SGOT, SGPT, and total bilirubin with no evidence of hepatocellular damage. Renal — transitory rises in BUN have been observed in some patients treated with cephalosporins; their frequency increases in patients over 50 years old. In adults for whom serum creatinine determinations were performed, the rise in BUN was not accompanied by a rise in serum creatinine. Others — dizziness, tightness in the chest, and candidal vaginitis.

DOSAGE: Adults — For respiratory tract infections (other than lobar pneumonia) and skin and skin structures infections: 250 mg q. 6 h or 500 mg q. 12 h. For lobar pneumonia: 500 mg q. 6 h or 1 g q. 12 h. For uncomplicated urinary tract infections: 500 mg q. 12 h; for more serious UTI, including prostatitis, 500 mg q. 6 h or 1 g q. 12 h. Severe or chronic infections may require larger doses (up to 1 g q. 6 h.).

Children over 9 months of age — 25 to 50 mg/kg/day in equally divided doses q. 6 or 12 h. For otitis media due to *H. influenzae:* 75 to 100 mg/kg/day in equally divided doses q. 6 or 12 h but not to exceed 4 g/day. Dosage for children should not exceed dosage recommended for adults. There are no adequate data available on efficacy of b.i.d. regimens in children under 9 months of age.

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Antihypertensive Therapy: A Mechanistic Approach

MYRON H. WEINBERGER, M.D.
Indianapolis



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To obtain Category 1 credit for this month's article, complete the quiz on page 215.

The author is Professor of Medicine and Director of the Hypertension Research Center, Indiana University School of Medicine, Indianapolis.

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IN THE PAST DECADE a number of new, effective and safe antihypertensive agents have been approved by the FDA which enable the effective control of elevated blood pressure in 95% of hypertensive patients. Two major obstacles to this noble accomplishment are patient non-compliance and the confusion engendered by the myriad agents available for use. Patient compliance can be enhanced by explaining the need for adhering to therapy despite the asymptomatic nature of hypertension, by simplifying the antihypertensive regimen as much as possible, by using long-acting agents which can be taken once or twice a day, and by minimizing the side effects of medications and their cost.

Causes of Hypertension

Confusion regarding how and when to use the currently available antihypertensive agents can be clarified by a simple classification of these drugs. This classification is based on understanding the mechanisms which may be responsible for elevating blood pressure. Hypertension can result from an abnormality of any one of the three mechanisms depicted in *Figure 1*. Excessive retention of sodium and water can result from an abnormality of renal function, from a genetic predisposition to inefficient sodium handling or from habitual excess sodium intake. This salt and water retention can expand intravascular volume and increase blood pressure. A second mechanism by which blood pressure can be increased is to induce constriction of the arterial and arteriolar bed, mediated by vasoconstrictor substances (norepinephrine, angiotensin, prostaglandins) and resulting in an increase in peripheral vascular resistance.

The third mechanism for increasing blood pressure is by activation of the sympathetic nervous system. This has a three-pronged effect since alpha-adrenergic stimulation induces sodium and water reabsorption by the kidney (volume expansion), vasoconstriction (increased resistance) and, independent of these mechanisms, it also increases cardiac output by its effect on cardiac contractility and heart rate. In most patients with uncomplicated essential hypertension an abnormality of only one of these factors is difficult to identify. In most patients two or even all three mechanisms may be involved, which explains why multiple drug therapy is so effective in treating hypertension.

With this background it is now possible to categorize all currently available antihypertensive agents as being members of one of three classes of drugs, each directed against one of these pathophysiologic mechanisms. This is not only an aid to classifying these drugs but also enables their effective utilization in the algorithmic (stepped-care) treatment of hypertension. *Figure 2* presents such a scheme.

Diuretic Therapy

The first class of drugs are the diuretics used to combat volume expansion. Diuretics can be categorized on the basis of their duration of action into short, intermediate and long-acting

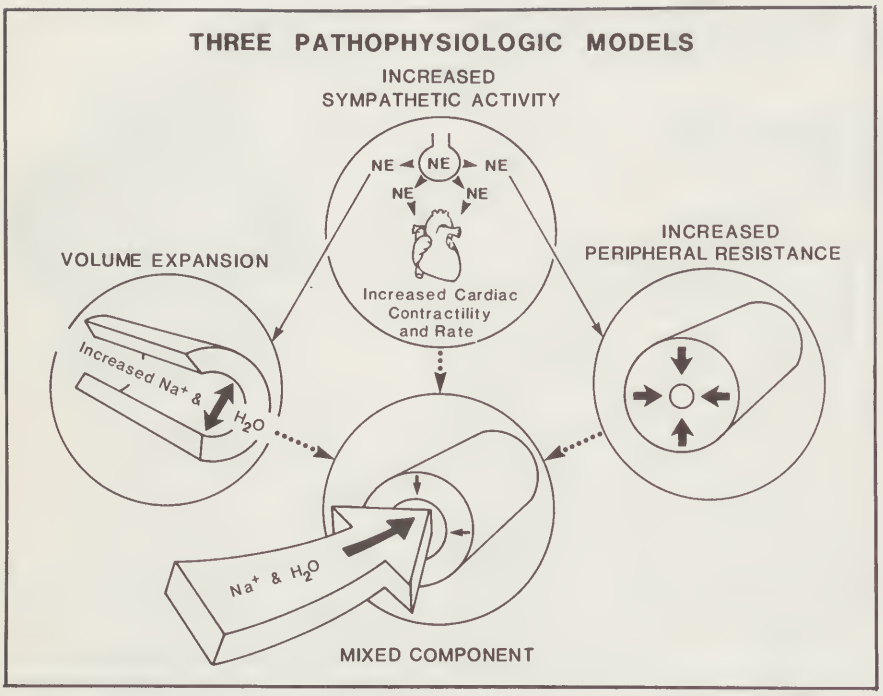


FIGURE 1

agents as well as potassium-sparing drugs.

The short-acting diuretics are agents such as furosemide (Lasix) and ethacrynic acid (Edecrin) which inhibit sodium and chloride transport in the ascending limb of Henle's loop. These are rapidly acting, potent diuretic agents which are the agents of choice in hypertensive emergencies (acute pulmonary edema, malignant hypertension) and in patients in renal failure but must be given three to four times a day to achieve smooth blood pressure control in uncomplicated hypertensive patients. When given with this frequency, these potent agents induce marked volume depletion, potassium loss and elevation of uric acid and glucose. The cost, side effects and poor patient compliance associated with such frequent administration makes these agents a poor choice for *uncomplicated* hypertensives. While long-acting diuretics such as metolazone (Zaroxolyn; Diulo) and chlorthalidone (Hygroton) obviate the necessity for multiple doses, their prolonged duration of action may cause nocturia and produce a greater degree of hypokalemia than the intermediate-acting diuretics. The bulk of diuretic agents on the market are of the intermediate-acting, benzothiadiazide type. Hydrochlorothiazide (Hydrodiuril) and chlorothiazide (Diuril) are the most frequently prescribed drugs in this group. These intermediate-acting diuretics can be given once, or at most twice a day. The major side effects are potassium loss, elevation of uric acid (and precipitation of gout), blood sugar and serum lipids.

Diuretic Side Effects

Potassium loss is the most common side effect of diuretic therapy. This results from activation of the renin-aldosterone system induced by the volume depletion accompanying diuretic therapy. Elevated levels of aldosterone lead to increased sodium-for-potassium exchange at the distal nephron. While invariable when effective diuresis occurs in an individual with normal renal function, the magnitude of potassium loss is directly proportional to the amount of sodium reaching the distal nephron. Thus, reducing dietary sodium intake is the first step in enhancing the effectiveness of diuretics and in minimizing associated potassium loss. In some mild hypertensives dietary sodium restriction alone may suffice to reduce blood pressure to acceptable levels. Counseling by a trained dietitian is usually required to achieve the requisite degree of dietary modification which can be enhanced by the support, training and involvement of family members.

While the clinical significance of asymptomatic hypokalemia is widely debated, current evidence suggests that it is a more important problem than has been previously acknowledged. The risk of digitalis intoxication in hypokalemic patients has long been recognized. More recently, an increased frequency of sudden death and ventricular arrhythmias during exercise have been reported in asymptomatic, mildly hypokalemic hypertensives. When potassium deficiency occurs, supplementation requires 40-80 mEq/d above the normal diet. This is difficult to achieve with orange juice (5.7 mEq/glass), bananas (6 mEq), liquid preparations which are not very well accepted or tablets (5-10 mEq each) which may induce gastrointestinal ulceration in addition to their expense.

Potassium-Sparing Drugs

There are three potassium-sparing drugs, spironolactone (Aldactone), triamterene (Dyrenium) and amiloride (Midamor). Alone, only spironolactone has the diuretic and antihypertensive potency of thiazide diuretics, but all three are effective as combination agents with thiazides (Aldactazide, Dyazide and Moduretic). Aldactone has been reported to cause painful gynecomastia in men and menstrual irregularity in women. Moduretic is effective once-a-day in most patients but has only been available in the United States since January 1981. The presence of renal impairment is a contraindication to the use of potassium-sparing drugs because of the potential for dangerous hyperkalemia. All potassium supplements and potassium-sparing agents should be administered cautiously to patients with

renal impairment, with frequent monitoring of potassium and renal function.

Vasodilators

As shown in *Figure 2*, vasodilators can be separated on the basis of their action. Direct acting vasodilators hydralazine (Apresoline) and minoxidil (Loniten) decrease peripheral resistance by interfering with the contractile properties of vascular smooth muscle. In so doing they evoke compensatory beta adrenergic stimulation, accounting for many of their side effects (tachycardia, precipitation of or worsening of angina). To combat this beta blockers usually are required. The direct-acting vasodilators induce marked fluid retention and thus potent diuretics must be used, further depleting potassium.

Headaches and gastrointestinal side effects are common with these agents. Loniten also induces marked hair growth, posing cosmetic problems for many female hypertensives. The parenteral vasodilator nitroprusside (Nipride) and diazoxide (Hyperstat) are used intravenously for malignant hypertension and other hypertensive emergencies. When the direct-acting vasodilators are used, it is at the third (Apresoline) or fourth (Loniten) step *(see table)* of multiple drug therapy because of their side effects and the need for coadministration of beta blockers and diuretics.

The indirect-acting vasodilators reduce resistance by interfering with one of the factors inducing vasoconstriction. Prazosin (Minipress) blocks the peripheral alpha adrenergic receptor site, thereby inducing vasodilation. The major side effect of prazosin is the "first-dose effect," symptoms of lightheadedness or even syncope in rare cases induced by the initial alpha adrenergic blockade. This can be minimized by beginning with a low dose (1 mg), avoiding excessive volume depletion, administration of the initial dose at bedtime and reminding the patient to reduce the initial dose if there has been a period of two days or more since the last dose, due to a delay in refill of the prescription, loss of medication or travel. Prazosin does not produce the reflex adrenergic stimulation, fluid retention and other side effects usually encountered with the direct-acting agents.

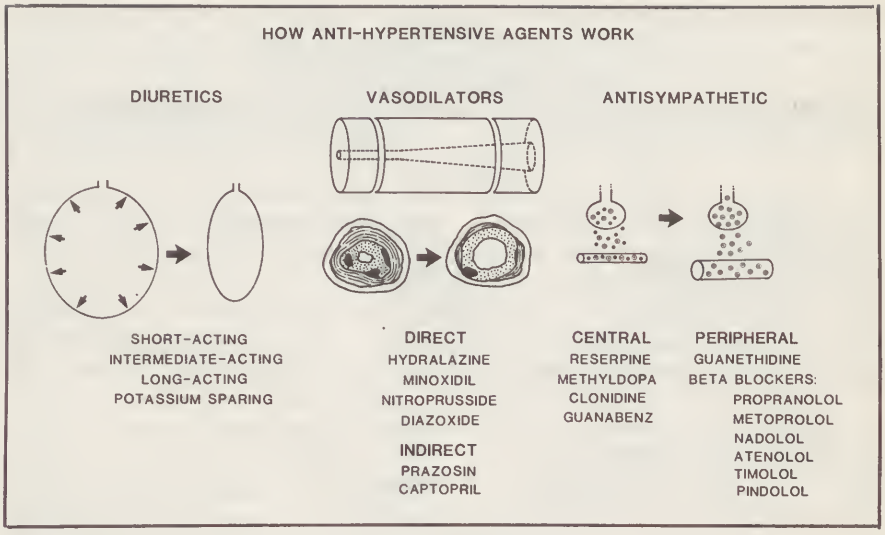


FIGURE 2

The other indirect-acting vasodilator currently approved for the treatment of both hypertension and congestive heart failure is captopril (Capoten). This agent induces vasodilation and a decrease in peripheral resistance by inhibiting the action of angiotensin converting enzyme, preventing the formation of angiotensin II, a potent vasoconstrictor. Because of its unique and multiple antihypertensive mechanism of action, Captopril has been shown to be effective in a broad spectrum of hypertensive patients. As an indirect vasodilator, it is not accompanied by the reflex beta adrenergic stimulation, tachycardia and other side effects often encountered with the direct-acting agents. Unlike antisympathetic drugs, it does not produce orthostatic hypotension and thus may by preferable in older patients. At present captopril is indicated for patients who have been intolerant of, or refractory to, other antihypertensive agents. This restriction is based on the side effects observed in experimental studies using high doses of captopril (300-600 mg/d) in severely hypertensive patients.

In such studies the common side effects included pruritic skin rash (10%), loss of taste (8%), transient proteinuria (1%), and rare reports of neutropenia. More recent experience using lower doses of captopril (50-150 mg/d) in patients without extensive renal and vascular disease has demonstrated a much lower incidence of these side effects and suggests that they are dose-dependent or more likely to occur in patients with pre-existing renal disease or those taking other agents with bone marrow toxicity. It is anticipated that the FDA will revise the restrictions on the use of captopril in the near future.

Antisympathetic Agents

The third class of antihypertensive agents *(Figure 2)* are those that oppose sympathetic nervous system activity. One group of these drugs act at the central nervous system level. These include reserpine, alpha methyldopa (Aldomet), clonidine (Catapres) and guanabenz (Wytensin). Along with their central nervous system effects in reducing blood pressure, these agents commonly produce central nervous system side effects. Lethargy, lassitude, impotence, depression, sleep disorders and hallucinations are common. In addition they may produce orthostatic hypotension by interfering with the reflex response to

TABLE
The Algorithmic (Stepped-Care) Approach to the Treatment of Hypertension

GENERIC DRUG (BRAND NAME)	DAILY DOSE RANGE	DAILY FREQUENCY
STEP 1		
DIURETIC		
furosemide (Lasix)	80-160 mg	3-4
ethacrynic acid (Edecrin)	50-200 mg	3-4
thiazide-type (Hydrodiuril, etc.)	25-100 mg	1
chlorthalidone (Hygroton)	25-100 mg	1
metolazone (Diulo, Zaroxolyn)	2.5-10 mg	1
triamterene + hydrochlorothiazide (Dyazide)	1-4 capsules	1-2
spironolactone + hydrochlorothiazide (Aldactazide)	1-4 tablets	1-2
amiloride + hydrochlorothiazide (Moduretic)	1-2 tablets	1-2
STEP 2		
VASODILATOR		
prazosin (Minipress)	3-20 mg	2-3
ANTISYMPATHETIC		
reserpine (many available)	0.125—0.5 mg	1
alpha methyldopa (Aldomet)	0.5—2.0 g	3-4
clonidine (Catapres)	0.2—2.4 mg	2
guanabenz (Wytensin)	8-32 mg	2
BETA BLOCKER		
propranolol (Inderal)	80-320 mg	2-4
metoprolol (Lopressor)	50-200 mg	2
nadolol (Corgard)	80-160 mg	1
atenolol (Tenormin)	50-100 mg	1
timolol (Blocadren)	20-40 mg	2
pindolol (Visken)	15-30 mg	2
STEP 3		
VASODILATOR		
prazosin (Minipress)	3-20 mg	2-3
hydralazine (Apresoline)	25-300 mg	2-4
ANTISYMPATHETIC		
(See Step 2)		
BETA BLOCKER		
(See Step 2)		
STEP 4		
VASODILATOR (Substitute for that used at Step 2-3)		
minoxidil (Loniten)	4-30 mg	3-4
captopril (Capoten)	50-450 mg	2-4
ANTISYMPATHETIC		
guanethidine (Ismelin)	10-100 mg	1-2

postural changes. With the advent of newer antihypertensive agents less likely to produce these side effects and the recent enthusiasm for the use of beta adrenergic blocking drugs, the utilization of these central antisympathetic agents has declined.

The beta blockers act at the peripheral level of the sympathetic nervous system, primarily reducing cardiac output. Another peripheral anti-sympathetic agent, guanethidine (Ismelin), has found disfavor because of orthostatic hypotension and other sympathetic side effects. At present six beta blockers are available on the American market: propranolol (Inderal), metoprolol (Lopressor), nadolol (Corgard), atenolol (Tenormin), timolol (Blocadren) and pindolol (Visken). There are several other beta blockers available in other countries and under investigation in the United States.

It is likely that more may be approved for the American market. The average dose of beta blocker required for antihypertensive effect is generally higher than that required for the treatment of angina or cardiac arrhthymias. The *Table* depicts the average and maximum doses of beta blockers for reducing blood pressure. Many physicians are deterred from prescribing full effective doses of beta blockers because of the bradycardia which is often observed at lower doses than the antihypertensive effect. Often adequate blood pressure response requires a further increase in dose. This is not usually attended by an additional slowing of heart rate. Thus, in an asymptomatic patient without 2nd or 3rd degree heart block, a heart rate of 48/minute may be acceptable at effective doses of beta blockers.

Beta Blocker Side Effects

The side effects of beta blockers can be categorized as due to both β_1 and β_2 receptor blockade, to their penetration of the blood brain barrier and to their metabolism. Blockade of the β_2 receptor is responsible for the peripheral vascular symptoms (cold extremities, paresthesias, Raynaud's phenomenon, claudication), pulmonary symptoms (asthma, bronchospasm, dyspnea) and difficulties in insulin-dependent diabetic patients (intolerance of hypoglycemia and exaggerated hypertension). These side effects can often be avoided by utilizing *relatively* cardioselective agents (Lopressor, Tenormin). At submaximal doses these agents preferentially block the β_1 receptor, decreasing cardiac output, heart rate and blood pressure, while leaving the β_2 receptors unopposed. This preferential β_1 blockade is relative since at near-maximal doses they also induce β_2 blockade, and thus can pro-

duce the same side effects as the less cardioselective agents when used at full therapeutic doses.

The ability of some beta blockers to penetrate the blood-brain barrier and thus produce central nervous system side effects is related to the greater lipid solubility of these agents. Such side effects include somnolence, fatigue, depression, vivid dreams, sleep disorders, hallucinations, impotence, ataxia and dizziness. The greatest amount of lipid solubility is demonstrated by Inderal while Tenormin and Corgard are the least lipid soluble and thus are less likely to cause CNS side effects. Relative lipid solubility also determines the variability of absorption and hepatic metabolism of beta blockers and thus the duration of their biologic effects.

Inderal, being highly lipid soluble, is the most variable in its absorption and the shortest acting of the beta blockers, while the highly water soluble agents such as Corgard and Tenormin have a more narrow dose range and a prolonged duration of action. The latter permits once-a-day dosing for the majority of patients and minimizes the risk of the withdrawal syndrome (angina, acute myocardial infarction) encountered with abrupt discontinuation of beta blocker therapy. The most recently approved agent, Visken, has an additional unique property, that of intrinsic sympathomimetic activity (ISA). Visken thus acts as a partial beta adrenergic agonist in addition to its antagonist (blocking) effect. Theoretically, this should reduce bronchospasm in a susceptible patient and provide antihypertensive activity with less bradycardia than agents not having ISA.

Stepped-Care Treatment

The mechanistic scheme presented for the organization of antihypertensive agents into three groups provides a simple approach to the treatment of uncomplicated hypertension. This approach is a modification of the recent algorithm for the "stepped-care" treatment of hypertension proposed by the Joint National Commission on Blood Pressure Control. This modification relegates Apresoline to step 3 rather than step 2 for reasons which are discussed subsequently. The guidelines influencing the choice of antihypertensive agents in the majority of uncomplicated hypertensives takes into consideration several points: frequency of drug administration and side effects (since these aspects markedly influence patient compliance), efficacy and cost. In the American hypertensive population, in contrast to the observations in hypertensive groups elsewhere in the world, more hypertensives will achieve blood pressure control with a diuretic than any other *single* antihypertensive agent. Thus, the initial agent chosen for most uncomplicated patients is a diuretic. For the reasons outlined previously, we utilize the intermediate-acting thiazide diuretics, like Hydrodiuril 50 mg once a day, or its equivalent in the majority of patients. The maximum effect of diuretics on blood pressure can be observed within 10-14 days.

First Step Agents

Effective instruction regarding dietary sodium restriction should be given to enhance the effectiveness of diuretic therapy and to minimize potassium loss. A goal of 2 gm of sodium (4-5 gm salt) is desirable and can be monitored by measuring urinary excretion of sodium in a 24-hour sample or using a "salt-stick" (Quantabs), much as the diabetic checks for glycosuria. The goal is 60-80 mEq sodium/24 hr. In some patients an increase to 100 mg hydrochlorthiazide as a single daily dose or 50 mg twice a day (with the second dose taken at mid-day to minimize nocturia) may be needed to optimize blood pressure control. The serum potassium should be checked after one month, three months and six months of treatment and at six-month intervals thereafter to determine if hypokalemia (serum potassium < 3.5 mEq/L) has occurred. If hypokalemia is found, a change to a potassium-sparing thiazide combination is appropriate. Beginning diuretic therapy with potassium-sparing agents may be preferred in patients receiving digitalis. Dyazide contains 25 mg hydrochlorothiazide and 50 mg triamterene; Moduretic contains 50 mg hydrochlorothiazide and 5 mg amiloride, and Aldactazide contains 25 mg hydrochlorothiazide and 25 mg spironolactone. Triamterene and amiloride are weak antihypertensive agents in comparison to hydrochlorothiazide and thus the appropriate dose of the combination agent is usually based on the amount of hydrochlorothiazide required to achieve blood pressure control.

In patients with renal impairment the use of potassium-sparing agents is *not* recommended since they may develop hyperkalemia with them. Periodic monitoring of serum potassium and renal function is indicated as with thiazide diuretics alone. If symptomatic gout occurs during diuretic treatment, acute relief of symptoms with colchicine or indomethacin is appropriate but these agents should not be used chronically. After the acute episode has passed, agents such as allopurinol may be added.

Second Step Agents

If the diuretic alone does not control blood pressure adequately, the agent should be *continued* and a second drug added. As shown in the *table,* the second step agent may be one of the antisympathetic or beta blocking drugs or the vasodilator prazosin. Again, the guidelines require preference for long-acting agents, given once or twice a day, producing minimal side effects and expense. At present, the longer acting beta blockers (Corgard, Tenormin, Lopressor) and the indirect-acting vasodilator, Minipress, fulfill these criteria. Only Corgard and Tenormin can be given as a single daily dose with the diuretic. The centrally acting antisympathetic agents all produce central nervous system side effects, which may limit their acceptability by patients, and only reserpine is effective once daily. The others require administration two, three or four times a day, which may reduce patient compliance.

Third Step Agents

If the two drugs chosen, in full effective doses, do not adequately control blood pressure a third drug is added. The *table* indicates that Apresoline may be chosen as a vasodilator at this third step of treatment, or one of the antisympathetic agents listed in step 2 if prazosin was chosen at that step. It is not advisable to add a beta blocker to another antisympathetic agent (reserpine, alpha methyldopa, clonidine, guanabenz or guanethidine) because of the probability of inducing orthostatic hypotension with such combinations. Apresoline has been relegated to the third step of treatment because, as a direct-acting vasodilator it induces reflex beta adrenergic stimulation, producing tachycardia and provoking angina. Thus, it is usually administered with beta blockers to inhibit the reflex effect; it also must be given with a diuretic to combat the fluid retention associated with its action. This means a three-drug regimen and thus Apresoline is reserved for those hypertensives unresponsive to two agents.

Fourth Step Agents

If the three-drug combination does not adequately control blood pressure, a vasodilator from step 4 (Capoten, Loniten) is substituted for the previous vasodilator (Minipress or Apresoline). Because of the potency of Loniten as a direct-acting vasodilator, large doses of diuretics and beta blockers are usually required. With this step-wise approach one can anticipate adequate blood pressure control in 40-65% of uncomplicated hypertensives with a diuretic alone, 75% success with two drugs, 85% at step 3 and 95% at step 4, if the patient is compliant. Therapeutic failures to this algorithm deserve closer scrutiny for secondary forms of hypertension or referral to a center such as ours for experimental drug therapy.

Discussion

In a small proportion of hypertensive patients, beginning treatment with a beta blocker may be more effective than starting with a diuretic. Some investigators have suggested that measurement of renin levels is required to separate those with high renin levels who are most apt to respond to a beta blocker, from those with normal or low renin levels, in whom a diuretic is most effective initial therapy. We believe this is unnecessary, since the former group, those with high renin levels, have hypertension due to increased sympathetic nervous system activity and cardiac output, they can usually be identified in the office without special laboratory tests. They are usually under 40 years of age, white, frequently female, and have evidence of a hyper-dynamic circulation, often with tachycardia at rest. Individuals fulfilling two or more of the characteristics listed are most likely to respond to beta blockers alone, and thus the algorithm may be modified for such patients.

There are several antihypertensive agents in experimental clinical trial. These include new diuretics, beta blockers, prazosin-like indirect vasodilators, centrally acting antisympathetic agents and converting enzyme inhibitors. In addition, a combined alpha and beta adrenergic blocker, labetalol (Schering) is likely to be approved for use in the United States and studies of several calcium channel antagonists are currently in progress in hypertension. Preliminary evidence suggests that frequency of administration (three-four times a day), precipitation of congestive heart failure when combined with a beta blocker and orthostatic side effects may limit the use of these agents in hypertensive patients.

Finally, some pharmaceutical companies are developing a novel approach to the problems of compliance with antihypertensive medications by investigating different drug delivery systems, such as dermal patches which can provide smooth drug absorption over a period of days or weeks. Thus the treatment of hypertension will likely become even more complex than it currently is. However, the guidelines provided in this article should permit simple classification and utilization of these new agents in the future.

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Factitious Illness Reconsidered

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Abstract

The Munchausen Syndrome is reviewed and contrasted with the DSM III category of factitious illness. The principal features as outlined by various authors are compared. The early diagnosis of these difficult patients is emphasized as a means to reduce the large treatment costs of this illness. The unusual psychodynamics of the factitious patient as well as some treatment considerations are then discussed.

THE PROBLEM of patients who travel from one hospital to another fabricating stories in order to gain admission has drawn increasing attention since it was first named as the Munchausen Syndrome by Asher in 1951.[1] This syndrome was at first felt to be quite rare, with only scattered reports in the literature prior to the mid-1960s. Since that time markedly increased numbers have come to the attention of physicians and hospitals. These patients continue to deserve our attention, not only because of their expense to society, but also because of the general diagnostic difficulty they represent, the counter-transference feelings they engender, and the difficulty in treating these patients.

The attention on this syndrome has expanded steadily since it was first described by Asher in 1951. Most of the early cases are from England, but in the last 20 years extensive cases have been noted throughout the world. The syndrome first obtained its somewhat colorful name from Asher when he likened these patients to the Baron Karl Friedrich Hieronymus Von Muchausen, an 18th century fellow who traveled around the European countryside telling tall tales about himself. Since then there has been a lot of formal and informal name calling of these patients. Some of these names include hospital addicts,[2] hospital hoboes,[3] and Shaft Syndrome,[4] peregrinating problem patients,[5] Kopenickades,[6] the Ahasuerus,[7] and most recently factitious illness.[8,9] The choice of the term Munchausen probably has been unfortunate since these patients differ markedly from the original Baron (he never sought medical care),[10] but it is likely that the name will continue to be used for some time because of its colorful connotations.

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The Symptom Complex

The rich myth and folklore surrounding this illness are starting to give way to more systematic efforts to describe this syndrome. There have been a number of excellent reviews in the past several years and these are compared to the DSM III[9] diagnosis paradigm in *Table 1*.[2,5,11,12,13,14,15] The three most common traits noted among the various reviewers include pseudologica fantastica, multiple surgeries, and extensive traveling. Mentioned next in frequency are the uncooperativeness of the patients while in the hospital and their extensive demonstration of medical knowledge. Less frequently mentioned are the tendencies to abuse medications, the fact that they have few visitors while in the hospital, and their tendency to produce new symptoms resulting in a fluctuating clinical course. Three of the reviews list the symptom of the desire for pain or the tolerance of pain which these patients exhibit. This symptom is not mentioned in DSM III.

The symptom of having few visitors when hospitalized is reported by only one reviewer.[12] This is, however, felt to be an important symptom in that it exemplifies the social isolation of these patients and their use of the hospital as a surrogate family. The symptom of a fluctuating clinical course mentioned in DSM III is not mentioned in any of the other principal reviews. The development of new symptoms during the course of the hospitalization is alluded to in several case histories and is important in confirming that the symptoms are voluntarily produced.

The syndrome of factitious illness is divided into three subcategories in DSM III. There is a factitious disorder with psychological symptoms, chronic factitious disorder with physical symptoms, and atypical factitious disorder with physical symptoms. The latter category is for patients who contrive symptoms but who do not require hospitalization. The first two categories again reflect the mind-body dichotomy, which is prevalant in psychiatry at times but which is perhaps not that helpful. The literature we reviewed does not really indicate any underlying basis on which to subcategorize patients who contrive physical symptoms as opposed to those who contrive psychological symptoms.

The Diagnostic Workup

Each of the symptoms listed are important in detecting this problematic diagnosis. Early detection is important in reducing the horrendous expense these patients represent to society. Early detection is also important in continuing to better understand this syndrome and to devise a workable treatment regimen.

Pseudologica Fantastica: Stories presented by the patients at the time of admission often are plausible on their face and yet contain enough dramatic

TABLE 1

Comparison of Factitious Illness Components

Symptoms	DSM III	Barker	Chapman	Nadelson	Ireland	Cramer	Stern	Aduan
Pseudologica Fantastica	+	+	+	+	+	+	+	+
Noncompliance	+	+	+		+		+	+
Extensive Medical Knowledge	+	+		+		+	+	+
Abuse of Medications	+		+		+		+	
Multiple Surgeries	+	+	+	+	+	+	+	+
Extensive Traveling	+	+	+	+	+		+	+
Few Visitors	+				+			
Fluctuating Clinical Course	+							

and flamboyant details so they are suspect from the very beginning. For example, the patient may give a history of a huge blood loss but present with near normal hemoglobin levels.

Multiple Surgeries: The bodies of these patients often are a virtual gridiron of old surgical scars. The masochistic foundation to these surgeries is quite clear and yet the patients are able to dream up a story of current pain which would induce yet another surgical exploration. The surgeon should of necessity be increasingly cautious at the idea of additional surgery in direct proportion to the number of scars already on the body.

Extensive traveling: Factitious patients literally have no home, as evidenced by their history of continually moving from one place to another. The hospital is their home and they frequently are able to gain admission to another hospital on the day they are released from the previous hospital. This emphasizes their ongoing institutional dependency. Their traveling may also derive from their need to perpetuate their pattern of staying in hospitals and the realization that they would not be able to do this if they remained in one vicinity and the hospitals became familiar with their tendencies.

Noncompliance: These patients are very difficult to manage in the hospital and will do a lot of arguing and complaining about the quality of their care. They demand special attention from nurses and physicians. They talk very bitterly about previous hospitals which have not treated them appropriately. In spite of these bitter complaints, factitious patients stay in the hospital for quite some time until they have been discovered as factitious, and will then leave the hospital against medical advice.

Medical Knowledge: Often factitious patients are members of the medical profession. Their extensive medical knowledge serves to provide a plausible story so that initial admission to the hospital is achieved.

Medication Abuse: Factitious patients have such a strong need to be cared for that they solicit all kinds of medical attention. We earlier noted their strong desire for surgery and in a lesser way they perceive medication as another token of love from the physician and hospital personnel.

Few Visitors: The degree of social isolation of these patients is so marked that they really do need the hospital as the surrogate family. They usually will not even tell medical personnel who their families are. Few if any family or friends will visit the patient while in the hospital. This is perhaps due to the fact that these friends have been deceived by the patients on earlier occasions and are now angry and rejecting.

Fluctuating Clinical Course: When the admitting symptom has been taken care of (or explained away) the factitious patient will often develop a new symptom. This enables them to remain in the hospital for longer periods of time and again demonstrates their institutional dependency.

Typical Symptoms

The three types of Munchausen patients originally defined by Asher (abdominal, bleeding, neurological) have been expanded to include almost every organ system of the body. The reports include those with abdominal,[14] neurological,[17,18,19] bleeding,[20] esophageal,[21] feigned bereavement,[22] child abuse or factitious illness induced in children,[23,24,25] kidney stones,[26] hypoglycemia,[27] orthopedic,[44] fevers,[28,29,30,31] and psychiatric.[32,33] Cardiac cases also have been reported,[34-40] including one patient who demanded and received frequent cardio versions.[41]

Factitious illness has been noted in adolescents.[42] One factitious patient was discovered by this author with symptoms of simulated deafness, muteness, and hemiparesis. Other reports have included a variety of cases.[43-53] Elaborate names for these different presentations have been proposed (ie., laparotomaphilia migrans, neurologica diabolica, etc.) but are not felt by this author to be very useful. No clear differences have been noted in these subtypes and there is an emerging realization that any organ system may be involved.

Dynamic Considerations

The willingness of patients with factitious disorders to submit themselves to hospitalization, extensive testings,

and surgical intervention represents a clearly masochistic tendency. Some have interpreted this tendency as a defense against overwhelming guilt feelings.[54] Another interpretation has been that multiple surgeries represent many suicides "where parts of the self are sacrificed to save the whole."[54] Indeed, there is a strong history of suicide attempts in these individuals.

Another way to interpret this hospital-seeking behavior has been to define the hospital as a type of surrogate family for the patient.[55] The willingness of the patient to undergo painful medical procedures in order to receive care and attention from doctors and nurses has been likened to an infant being willing to tolerate the severe beatings of the mother in order to continue to enjoy her love and attention.[8] This also has been described as counter-phobic behavior in that the patient is seeking out an institution or a situation which he at the same time greatly fears.[48] The patient's choice of professionals to reenact this traumatic childhood experience is perhaps more than accidental. Several have reported that factitious illness patients have had unusual or extensive interactions with physicians as significant persons in their childhood.[13,46,48] The infantile cravings for attention in this syndrome also are noted. The patient becomes transformed from a helpless and pain-ridden individual to the sudden center of attention of a medical ward.[46]

Treatment Considerations

The counter-transference in this illness is often quite strong. Providers in the field of health care usually perceive themselves as busy dispensing precious health care in a world of limited supply. They thus become very irritated when the factitious patient is discovered to be squandering this care. The psychiatric consultant in this situation often needs to spend as much time decathecting the anger of the treating physician as in dealing with the patient.[56] This angry counter-transference is further aggravated by the fact that many of these patients have a medical background and thus the providers are being deceived by one of their own.

There are a few reports of successful therapy in the syndrome of factitious illness.[50,57] The majority of cases do not come to the attention of the psychiatrist because the patient signs out AMA upon being confronted by the contrived nature of his illness.

The principles used in treating the borderline patient are felt by some to be applicable.[11] The physician becomes the object of a transference psychosis. The physician needs to resist overreacting to these patients even though they do evoke a large amount of affect.[58] Earlier methods of dealing with these patients such as maintaining a blacklisting of them cannot really be considered for ethical reasons.

Clinical Applications

The early diagnosis of the patient with a factitious disease is quite important, not only for the savings in medical expense, but also in the potential for establishing an earlier psychotherapeutic alliance.[59] This patient probably needs to be committed to a psychiatric ward in order to receive therapy. The usual qualifications for commitment which include a danger to self and the presence of a mental illness are both demonstrated by this type of masochistic patient. The cost of treatment in a psychiatric ward is probably less in the long run than if these patients are allowed to roam about freely visiting numerous hospitals. The famous McIlory patient[16] illustrates this potentially large cost by the fact that he was admitted to the hospital on 207 occasions in 70 different hospitals in five different countries. During these admissions he used over 20 different surnames to accomplish his deception. The idea of simply diagnosing such a patient as a factitious patient and discharging him certainly does not effectively deal with the problem, but simply passes it on to the next hospital.

In summary, it is felt that the factitious patient will be difficult to treat under any circumstance. Early diagnosis and commitment to a psychiatric ward offer the optimal chances for improvement in these patients.

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Radiation Therapy in the Treatment of Recurrent Carcinoma of the Cervix

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Abstract

Recurrent carcinoma of the cervix continues to be a major therapeutic dilemma. When a patient demonstrates recurrence, it is still possible to achieve meaningful palliation, and sometimes cure, with aggressive therapy.

EARLIER DETECTION and improved treatment have reduced the number of deaths from carcinoma of the cervix. Nevertheless, recurrent disease following appropriate therapy continues to be a significant problem.

As with all malignancies, the first attempt at therapy provides the best opportunity for cure.[1] Since cancer of the cervix usually spreads locally to involve contiguous structures and pelvic nodes, all patients with proven recurrent disease in the pelvis should be carefully investigated for distant spread. If there is no evidence of distant metastasis, an aggressive retreatment should be attempted. In a large percentage of these patients, long-term palliation of their symptoms and prolongation of their life span will occur. A significant percentage of these patients actually may be cured if an aggressive policy is followed.

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Materials and Methods

This study represents a retrospective review of patients treated in the Department of Radiation Oncology at the Indiana University School of Medicine. All of these patients had local recurrence following surgery for carcinoma of the cervix. Between 1965 and 1980, a total of 17 patients were treated for recurrent carcinoma of the cervix in our department. The method of treatment varied, as shown in *Table 1*. The majority were treated with a course of external pelvic radiation therapy using a high-energy photon beam, followed by interstitial or intravaginal radiation therapy. The choice of retreatment depended on the site and extent of tumor and the patient's medical status. All patients underwent workup which included a complete blood count, chest x-ray, IVP, barium enema and sigmoidoscopy. A CT scan of the abdomen and pelvis was obtained on patients treated during recent years.

Table 2 demonstrates the interval from the time of treatment to the recurrence. The majority of patients in our study recurred within the first two years, which correlates with the findings of other authors.[2,3,4] The majority of patients (10/17) were initially treated with a total abdominal hysterectomy and bilateral salpingo-oophorectomy without a lymphadenectomy.

Results

Eleven of 17 patients are eligible for over one-year follow-up (*Table 3*). Nine of 17 patients (52%) treated are alive without disease more than one year while 47% are over two years. The longest survivor is 16 years after retreatment for recurrence. This patient was treated with external pelvic radiation therapy and an intravaginal Bloedorn applicator to the residual tumor.

Discussion

Carcinoma of the cervix is a highly curable disease.[2,4,5] At the time of initial presentation, patients should be carefully staged. In cases of early invasive carcinoma, the pathology report should include the depth of stromal invasion and whether there is any lymphatic or vascular involvement by the malignant cells.[6,7] The incidence of lymph node involvement varies with the stage of disease.[8,9] Follow-up evaluation after initial therapy should be done closely for the first two years since the majority of recurrences occur during this time.

Treatment of early invasive carcinoma of the cervix should include the primary tumor and draining lymph nodes whether treatment is by surgery or radiation therapy. Certain histomorphologic characteristics such as depth of stromal invasion, malignant cells in vascular spaces, endocervical growth, tumor extension to the lower uterine segment or barrel-shaped tumors worsen the prognosis in patients with early cervical carcinoma.[2,10,11] It appears that these factors may be related to increased incidence of early lymphatic spread with ultimate locoregional failure.

TABLE 1
Time of Recurrence After Treatment

PREVIOUS TREATMENT	2 YEARS	2-5 YEARS	> 5 YEARS
Total Abdominal Hysterectomy and Bilateral Salpingo-Oophorectomy	2	5	3
Radical Hysterectomy Lymphadenectomy	3		
Interstitial Implant			1
External Pelvic Radiation therapy		1	
External Pelvic Radiation Therapy and Implant			2
Total	5	6	6

TABLE 2
Method of Treatment for Recurrent Carcinoma of the Cervix

TYPE OF THERAPY	# PATIENTS
External Pelvic Radiation + Implant (Intravaginal)	7
Intravaginal Bloedorn Alone	2
External Pelvic Radiation Alone	5
External Pelvic Radiation + Interstitial Implant	1
External Pelvic Radiation + Intravaginal Cone	1
Intracavitary Implant Alone	1

TABLE 3
Follow-up After Treatment

Years	1	2	3	4	5	6	7	8	9	10	> 10	Lost to FU
# Patients	7	5	2								1	2

When patients demonstrate recurrence, it is still possible to achieve meaningful palliation and sometimes cure with the use of aggressive therapy.[3,9] In our series, 52% of the patients survived without disease at the end of the first year. These patients were completely asymptomatic and were enjoying a normal life.

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Poison Ivy Dermatitis in Winter with an Example of Filial Contact Dermatitis

Clinical Notes

JERE D. GUIN, M.D.
Kokomo

EXCEPT FOR A SMALL area in the southern tip of Florida, poison ivy is dormant during the winter months.[1] Nonrecognition of the plant in this state has led to a persistent myth that poison ivy dermatitis does not occur in the winter months.

Although field identification of these plants in Indiana should be based on multiple botanical features,[2] most individuals use the shape and number of leaflets as the only criteria, and these characteristics are absent in the dormant state. Winter recognition requires use of botanical features[3] that are not difficult but merely unfamiliar. The appearance of the eruption is also likely to be a bit different because the plant is less juicy so exposure may not be as uniform over an area. When taking a history one must take into account the fact that winter experiences leading to exposure are somewhat unique. The following case histories perhaps will illustrate this:

• A very intelligent 10-year-old boy developed severe eczema, predominately on the right side of his face with swelling. A few linear lesions could be found on careful examination. No history of exposure could be elicited, but when the patient was shown an audiovisual program on identification of poison ivy in Indiana in all seasons, he recognized the rootlets on the main trunk of larger vines and knew the source immediately. He had helped his father load firewood into the fireplace and recalled seeing those botanical structures. He and his mother went straight home and found poison ivy on the firewood logs.

• A 19-year-old woman known to be allergic to poison ivy presented in late November with a few broken lines of eczema on one side of the face and neck. She did not recall being exposed in the recent past. She was shown the lines of papulovesicular lesions that suggested fingermarks, but these did not match any position of her hand when it was placed over the eruption. She remarked that her father was itching, and that he could easily have touched her. Her father was seen a day later with rather severe poison ivy dermatitis. After seeing the audiovisual program, he remembered pulling vines off trees in clearing fence rows.

• A 65-year-old man was seen on Sept. 29 for prominent contact dermatitis of the arms and face. He had been gathering bittersweet *(Celastrus scandens,* L., Celastraceae) to use in dried flower arrangements. This vine, like poison ivy, grows in moist, fertile soil.

• A 33-year-old housewife was treated in late October for severe contact dermatitis of the arms, hands, face, and neck. Originally, there was no history of exposure to poison ivy, but after an educational program on winter recognition she knew the source. She remembered using vines to make wreaths for the Christmas season, some of which resembled specimens in the program. After a fast trip home, she found poison ivy prominently entwined in the wreaths.

All of these patients illustrate poison ivy dermatitis in Indiana from dormant plants or dried plant materials. The father's transfer of the allergen to his daughter is an example of filial contact dermatitis (between a husband and wife it would be called connubial contact dermatitis),[4,5] and illustrates a not so obvious source. An audiovisual program on recognition is invaluable in uncovering hidden sources of contact,[6] and this requires only about 20-25 minutes of room space during office hours and little or no physician time, provided automatic equipment is used. This approach to prevention has dramatically reduced the incidence of chronic repeaters in my practice.

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PROCARDIA® CAPSULES For Oral Use
(nifedipine)

BRIEF SUMMARY

INDICATIONS AND USAGE: I. Vasospastic Angina: PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm. In those patients who have had angiography, the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied. PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component but where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion or in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers.

II. Chronic Stable Angina (Classical Effort-Associated Angina): PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate these agents.

In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these patients are incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta-blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings.)

CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA.

WARNINGS: Excessive Hypotension: Although in most patients, the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly tolerated hypotension. These responses have usually occurred during initial titration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Severe hypotension and/or increased fluid volume requirements have been reported in patients receiving PROCARDIA together with a beta blocking agent who underwent coronary artery bypass surgery using high dose fentanyl anesthesia. The interaction with high dose fentanyl appears to be due to the combination of PROCARDIA and a beta blocker, but the possibility that it may occur with PROCARDIA alone, with doses of fentanyl, in other surgical procedures, or with other narcotic analgesics cannot be ruled out. In PROCARDIA treated patients where surgery using high dose fentanyl anesthesia is contemplated, the physician should be aware of these potential problems and, if the patient's condition permits, sufficient time (at least 36 hours) should be allowed for PROCARDIA to be washed out of the body prior to surgery.

Increased Angina: Occasional patients have developed well-documented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Beta Blocker Withdrawal: Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release. There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA.

Congestive Heart Failure: Rarely, patients usually receiving a beta blocker have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater risk for such an event.

PRECAUTIONS: General: Hypotension: Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. (See Warnings.)

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug interactions: Beta-adrenergic blocking agents: (See Indications and Warnings.) Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates: PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antianginal effectiveness of this combination.

Carcinogenesis, mutagenesis, impairment of fertility: When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose.

Digitalis: Administration of PROCARDIA with digoxin increased digoxin levels in nine of twelve normal volunteers. The average increase was 45%. Another investigator found no increase in digoxin levels in thirteen patients with coronary artery disease. In an uncontrolled study of over two hundred patients with congestive heart failure during which digoxin blood levels were not measured, digitalis toxicity was not observed. Since there have been isolated reports of patients with elevated digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing PROCARDIA to avoid possible over- or under-digitalization.

Pregnancy: Category C. Please see full prescribing information with reference to teratogenicity in rats, embryotoxicity in rats, mice and rabbits, and abnormalities in monkeys.

ADVERSE REACTIONS: The most common adverse events include dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%. Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antianginal medication. Additionally, the following have been reported: muscle cramps, nervousness, dyspnea, nasal and chest congestion, diarrhea, constipation, inflammation, joint stiffness, shakiness, sleep disturbances, blurred vision, difficulties in balance, dermatitis, pruritus, urticaria, fever, sweating, chills, and sexual difficulties. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

Laboratory Tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CPK, LDH, SGOT, and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy. The relationship to PROCARDIA therapy is uncertain. These laboratory abnormalities have rarely been associated with clinical symptoms.

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA Capsule contains 10 mg of nifedipine. PROCARDIA Capsules are supplied in bottles of 100 capsules (NOC 0069-2600-66), 300 capsules (NOC 0069-2600-72), and unit dose (10x10) capsules (NOC 0069-2600-41).

The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

More detailed professional information available on request.

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"I can do things that I couldn't do for 3 yrs. including joining the human race again."



Quotes from an unsolicited letter received by Pfizer from an angina patient. While this patient's experience is representative of many unsolicited comments received, not all patients will respond to Procardia nor will they all respond to the same degree.

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"My daily routine consisted of sitting in my chair trying to stay alive."

"My doctor switched me to PROCARDIA[*] *as soon as it became available. The change in my condition is remarkable."*

"I shop, cook and can plant flowers again."

"I have been able to do volunteer work...and feel needed and useful once again."

PROCARDIA can mean the return to a more normal life for your patients—having fewer anginal attacks, taking fewer nitroglycerin tablets, doing more, and being more productive once again.

Side effects are usually mild (most frequently reported are dizziness or lightheadedness, peripheral edema, nausea, weakness, headache and flushing, each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%).



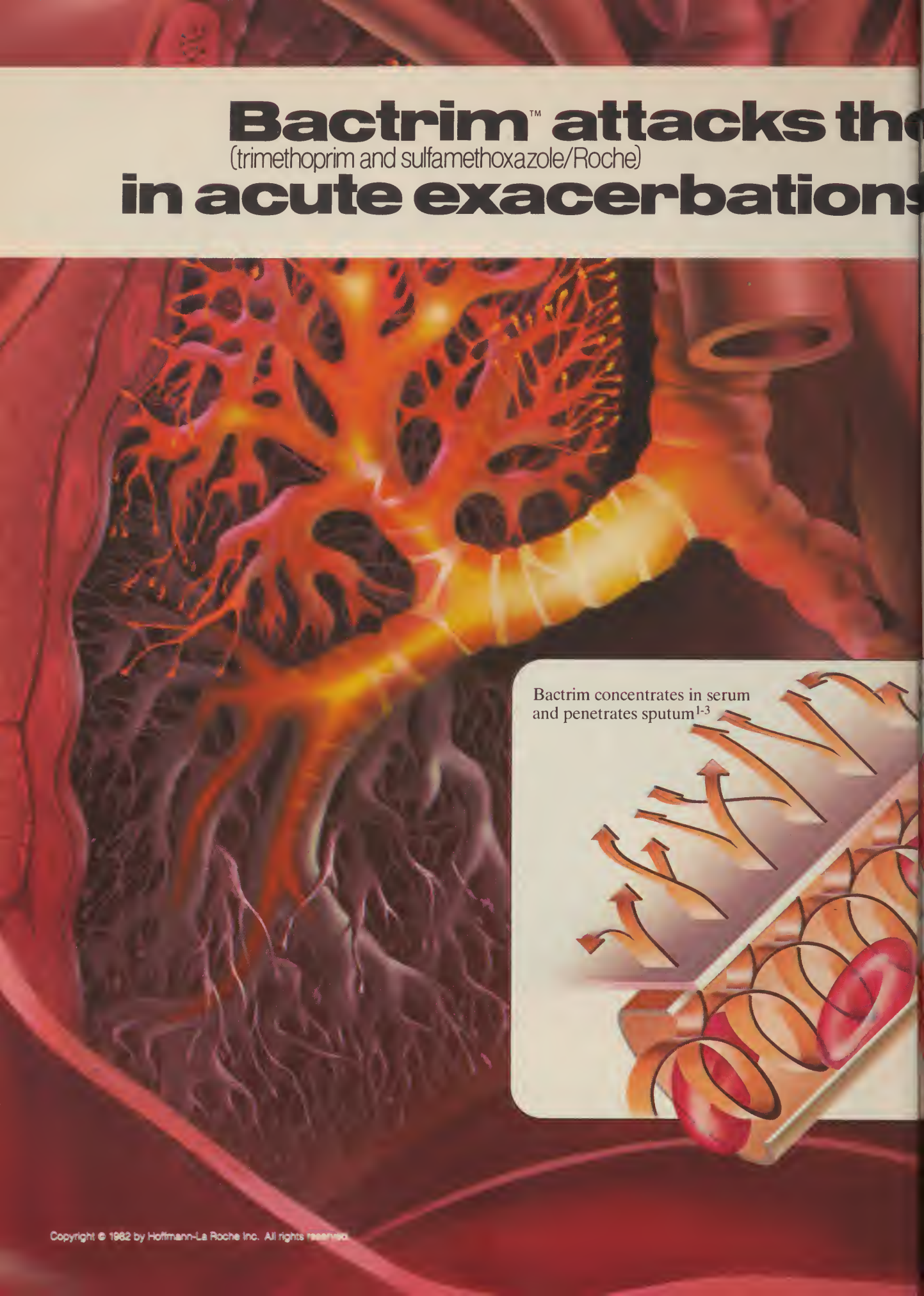
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*Procardia is indicated for the management of:
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3) Chronic stable angina without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or nitrates or who cannot tolerate these agents. In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks' duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these patients are incomplete.

Please see PROCARDIA *brief summary on adjoining page.*

Bactrim™ attacks the
(trimethoprim and sulfamethoxazole/Roche)
in acute exacerbations



Bactrim concentrates in serum and penetrates sputum[1-3]

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ROCHE

najor pathogens
f chronic bronchitis*

Bactrim clears sputum of susceptible bacteria

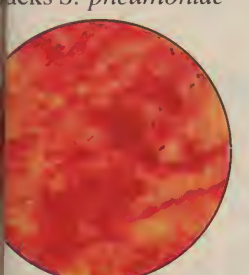
In sputum cultures from patients with acute exacerbations of chronic bronchitis, *H. influenzae* and *S. pneumoniae* are isolated more often than any other pathogens.[4,5] One study of transtracheal aspirates from 76 patients with acute exacerbations found that 80% of the isolates were of these two pathogens.[5]

Bactrim is effective *in vitro* against most strains of both *S. pneumoniae* and *H. influenzae*—even ampicillin-resistant strains. And in acute exacerbations of chronic bronchitis involving these two pathogens, sputum cultures taken seven days after a two-week course of therapy showed that Bactrim eradicated these bacteria in 91% (50 of 55) of the patients treated.[6]

s *H. influenzae*—even
cillin-resistant strains



acks *S. pneumoniae*



Bactrim reduces coughing and sputum production

In three double-blind comparisons with ampicillin *q.i.d.*, Bactrim DS proved equally effective on all clinical parameters.[7-9] Bactrim reduced the frequency and severity of coughing, reduced the amount of sputum produced and cleared the sputum of purulence.

Bactrim has the added advantages of *b.i.d.* dosage convenience and a lower incidence of diarrhea than with ampicillin, and it is useful in patients allergic to penicillins.

Bactrim also proved more effective than tetracyclines in 10 clinical trials involving nearly 700 patients.[10] Overall clinical condition of the patients, changes in sputum purulence, reduction in sputum volume and microbiological clearance of pathogens—all improved more with Bactrim therapy than with tetracyclines. G.I. side effects occurred in only 7% of patients treated with Bactrim compared with 12% of tetracycline-treated patients. (See Adverse Reactions in summary of product information on next page.)

Bactrim is contraindicated in pregnancy at term and nursing mothers, infants under two months of age, documented megaloblastic anemia due to folate deficiency and hypersensitivity.

Bactrim DS. For acute exacerbations of chronic bronchitis in adults* when it offers an advantage over single-agent antibacterials.

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Economical b.i.d.

Bactrim™ DS

(160 mg trimethoprim and 800 mg sulfamethoxazole/Roche)

*Due to susceptible organisms. **Please see next page for summary of product information.**

Bactrim™

(trimethoprim and sulfamethoxazole/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea, pseudomembranous colitis and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN.

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

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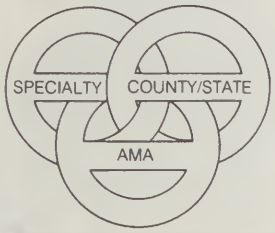
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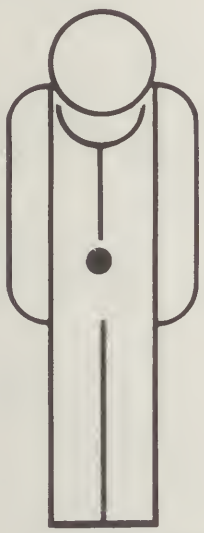
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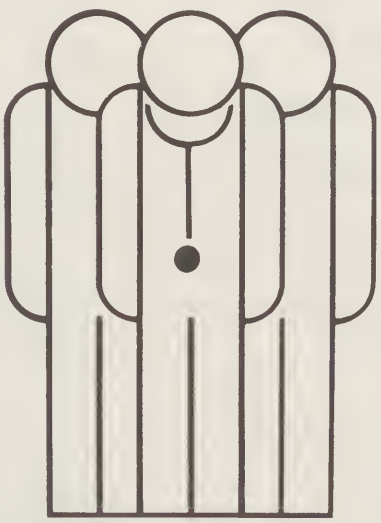
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Emergency Surgery for Strokes-in-Evolution

ALAN T. MARTY, M.D.
LARRY KAYS, M.D.
MICHAEL MONAR, M.D.
Evansville

The authors believe that understanding when to apply this controversial therapy will promote better patient care . . .

STROKES ARE NOT all alike. Some begin as mild strokes that worsen relentlessly within hours or days of their onset. The ongoing march to a severe neurologic deficit may present in a series of acute exacerbations, or the neurologic deficit may improve temporarily, and then worsen. This waxing and waning or succession of symptoms that advance over hours or days constitute what has been called "Stroke-in-Evolution" (S.I.E.).

The natural history of strokes-in-evolution is grim. For example, of 204 consecutive cases treated medically, 69% became hemiparetic, 5% monoparetic and only 12% returned to normal by 14 days from the onset of symptoms. Furthermore, 14% of these patients with S.I.E. died.[1] Because conservative management loses ground and results in fixed neurological deficits in most patients with S.I.E., a more aggressive approach is warranted in selected cases.

Case Report

A 53-year-old right-handed white woman entered Deaconess Hospital with a 30-hour history of progressive numbness and paresis involving the left side of her body. About 30 hours prior to admission she experienced an abrupt onset of complete loss of vision associated with numbness of her left arm. This subsided over an hour or so and she went to work. That afternoon she experienced another bout of visual loss and numbness of the left arm. Along with this she felt somewhat confused and could hear herself talking but she was not sure exactly what she was saying. Her left upper and later her lower extremities did not feel like they belonged to her.

She was initially admitted to Daviess County Hospital where numbness and partial paresis progressively involved the whole left side of her body. She was therefore transferred to Deaconess Hospital. At this time somatic examination revealed normal tone in all four extremities, but a significantly decreased grasp on the left. A drift to the left upper extremity was present, but it did not conform to the typical pyramidal tract pattern. Regarding her lower extremities, she was able to heel-to-shin bilaterally, but had weakness in hip flexion on the left. Plantar stimulation caused withdrawal on the left side. The toe sign was equivocally extensor.

Sensory examination showed hypalgesia to pin prick over the left side. The midline cut could not be definitely demonstrated. Cerebellar and cranial nerve examinations were normal. Bilateral soft carotid bruits were present, louder on the left.

Her past history was positive for hypertension, managed with dyazide, one daily. Her sister had died of a stroke. She smoked one package of cigarettes per day.

An emergency CT scan of her head was read as normal, although in retrospect a definite zone of under attenuation in the right parietal area was appreciated later. *(Fig. 1).* Selective carotid arteriography demonstrated meager filling through a 99% narrowing of the right internal carotid artery *(Fig. 2).* An intraluminal clot within the post stenotic segment of the right internal carotid also appeared to be present. Almost no filling of the intracranial segment or branches of the right internal carotid was seen. The left internal carotid was narrowed 75%, with some cross filling to the right intracranial vessels.

An emergency right carotid endarterectomy was then performed. At surgery no clot was seen in the internal

Correspondence and reprints: Alan T. Marty, M.D., 350 W. Columbia, Suite 350, Evansville, Ind. 47710.

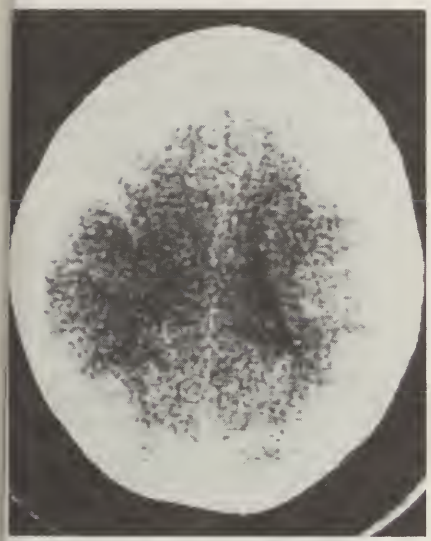


FIGURE 1: Preoperative CT scan. Note under attenuation in the right parietal region.



FIGURE 2: A 99% stenosis of the right internal carotid artery is seen.



FIGURE 3: Postoperative CT scan. Note right parietal under attenuation as before.

carotid. Either dye streaming or the extensive atheromatous material presumably accounted for the x-ray appearance of an intraluminal clot. The carotid stump pressure was extremely low to palpation and retrograde arterial flow was minimal. A Javid shunt was used.

Postoperatively, the patient immediately regained normal function of her lower left extremity and speech. Her left side now appeared to belong to her, whereas preoperatively it did not. Her left arm function did not normalize immediately after surgery. Initially, she showed some mild arm weakness and some tendency to fling her arm about. No drift was demonstrated. At times during the first few postoperative days she felt more sleepy than usual, for which she was treated with Decadron. An EEG showed slowing over the right temporal electrode. Peculiar posturing of her left hand was still in evidence by the third postoperative day.

A repeat CT scan at this time confirmed the under attenuation in the right parietal area and slight midline shift to the left *(Fig. 3)*. At discharge, on the seventh postoperative day, her left hand functioned normally. She also commented upon how clearly she could see and how bright the colors appeared to her, as compared to her preoperative status.

Discussion

The hesitation to perform emergency surgery in hopes of reversing the sequelae of acute strokes in the carotid circulation stems from reports published in the 1960s.[2,3,4] These authors found that a high mortality resulted when they operated upon patients with profound neurologic deficits due to totally occluded carotid arteries. Most patients who died in these early reports also had uncontrolled hypertension.[5] Because CT scanning was not yet available, no knowledge about whether such cases already had intracerebral hemorrhage exists. While exclusion criteria have not yet become firm even today, the impression remains that emergency vascular surgery is less likely to succeed if coma exists or if no important function remains in the affected cerebral hemisphere. Other relative contraindications to surgery include CT scan evidence of a cerebral hemorrhage, a large midline shift, or an infarct measuring more than one-third of the cerebral hemisphere.

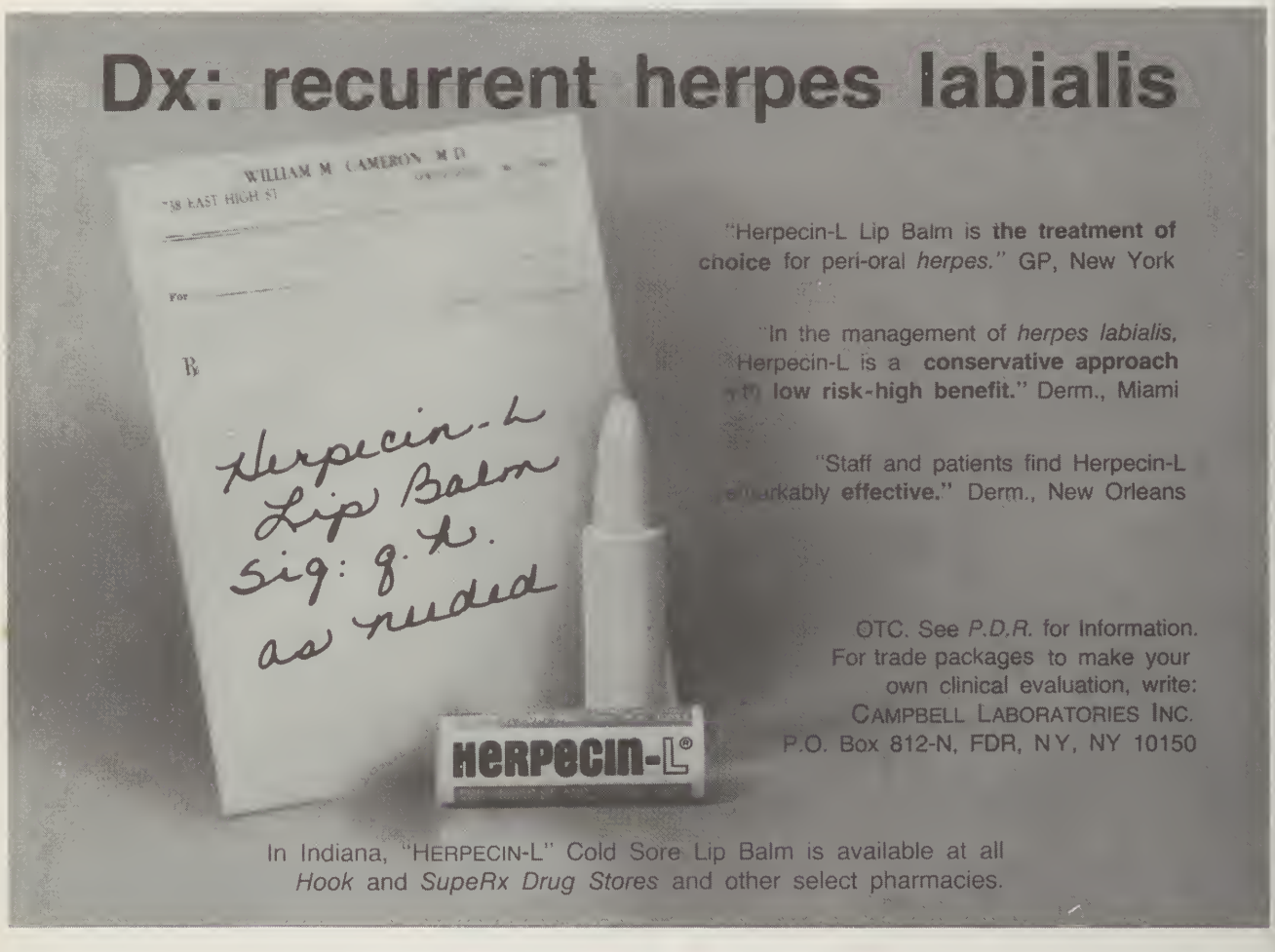
The presence of an area of under-attenuation on the CT scan in itself does not contraindicate emergency surgery. Indeed, in our patient the preoperative CT scan, done 30 hours after the start of her symptoms, indicated a probable right parietal infarct. Our decision to proceed with surgery was based upon the large amount of functioning but ischemic cerebral cortex remaining. In addition, our patient was still quite alert.

The concept that certain patients with strokes-in-evolution are ideal candidates for carotid arteriography and surgery is not new. Goldstone and Moore operated upon 18 patients with S.I.E. due to unstable carotid bifurcation lesions and reported their results in 1976.[6] All 18 made a complete and dramatic recovery with no residual defects. Similar superb results of emergency carotid surgery for S.I.E. occurred in Carson *et al's* series of three patients.[7] Crowell and Ojemann operated upon 32 patients for S.I.E. and reported good or excellent results in 25, and poor results in six. Their single patient who died displayed complete neurologic recovery but died of cardiopulmonary complications.[8]

These data strongly suggest that acute surgical restoration of cerebral blood flow can benefit patients with strokes-in-evolution. A fresh persistent neurologic deficit need not imply irreversible cerebral damage. Indeed, improvement has been observed in cases operated upon as long as 48 hours after the onset of the deficit.[9] In addition, Khanna *et al* have operated upon 261 patients with acute completed strokes, strokes-in-evolution, or unstable neurologic status, from two hours to two weeks after onset of symptoms. Operative mortality was 3.8% and worsening occurred in only 1.8%.[10] Emergency superficial temporal to middle cerebral artery anastamosis for stroke-in-evolution is also a promising procedure, and encouraging results in 12 patients has been reported recently.[11]

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Effective Utilization of Slides During the Presentation of a Scientific Talk

RAM S. RAVINDRAN, M.D.[1]
CRAIG GOSLING[2]
JANE C. MONTGOMERY[3]

PHYSICIANS PARTICIPATE in medical meetings and give lectures to their colleagues and nurses as a part of continuing medical education. The quality of such lectures often depends on the quality of the slides used to present scientific data.

In CME programs, the audience is asked to evaluate the overall presentation, including the slides. Too often, little attention is paid to the presentation and projection of slides. Slides are sometimes projected backwards, some are too dark to read, and some feature complicated data for which even the lecturer apologizes. Sometimes, even in national meetings, a lecturer will have to switch back and forth to a slide simply because he did not take the time to prepare a duplicate.

Based on our experience and observations, we have developed some slide guidelines that should enhance the quality of a lecture presentation.

In preparing a slide, careful consideration should be given to the background color. White letters or lines on a blue background appear most pleasing to the eye. Black on white—inexpensive and easy to make—is too bright, but is acceptable. White on black is too dim; it gives the audience the feeling of seeing through dark glasses. Multicolored letters on a black background make a slide look garish.

The Message

The message on the slide should be typewritten, double-spaced, with a large size print to assure legibility. Among other things, using a small size type tempts one to incorporate too much information on a single slide.

The title on a slide should be in block letters, preferably underlined. Typing the entire message in block letters is also acceptable but, if that be the case, the title should be typed with larger block letters. Allow at least three spaces between the title and the body of the message.

Ideally, a slide should not feature more than eight lines or four columns. Each line should have no more than eight words or 40 spaces. It is better to make more than one slide under the same title than to include too much information on a single slide.

Abbreviations should not be used, but if they are they should be the standard ones and should not vary from slide to slide.

Tables and Figures

Most speakers have a tendency to copy a slide of a figure or a table from a journal. This presents a problem in that figures and tables used in journals are published in all sizes and shapes. To enhance impact and offer a sense of uniformity, such tables or figures should be professionally re-done to fit a slide

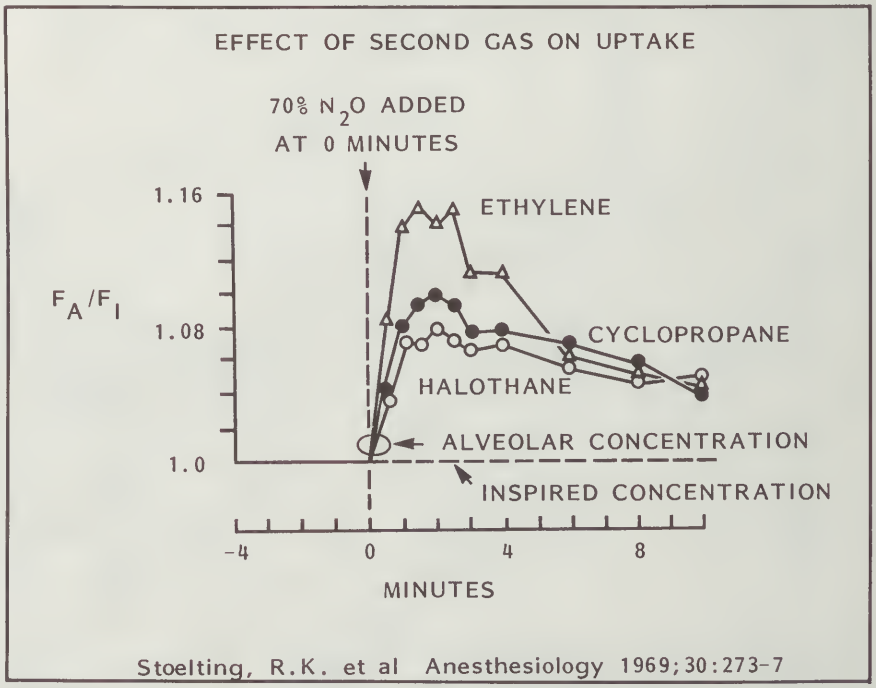


FIGURE 1

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[2]Director, Dept. of Medical Illustration, Indiana University School of Medicine.
[3]Supervisor, Dept. of Medical Illustration, Indiana University School of Medicine.

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format. By remaking a figure or table, a vertical one can be changed to a horizontal one, a verbose legend can be simplified or eliminated, and additional changes can be introduced to enhance clarity. In the process of slide preparation, bear in mind that all slides should project horizontally, thus eliminating the problem of projecting a horizontal-vertical mix of slides. Incidentally, whenever modifications are made on a figure or table, the slide should say so.

It is helpful to place a suitable title above the figure such as "Effect of Temperature on MAC." All slides of figures and tables should include the source of the information at the bottom. The reference should include the name of the primary author, the journal, the year of publication, and the page numbers (*Figure 1*). By including the reference, members of the audience are given a chance to seek more information on their own.

Sometimes data can be taken from the text of an article and made into a table to clarify a presentation. Sometimes an illustration concerning a technique or monitors used in a procedure serve the purpose better than a detailed description.

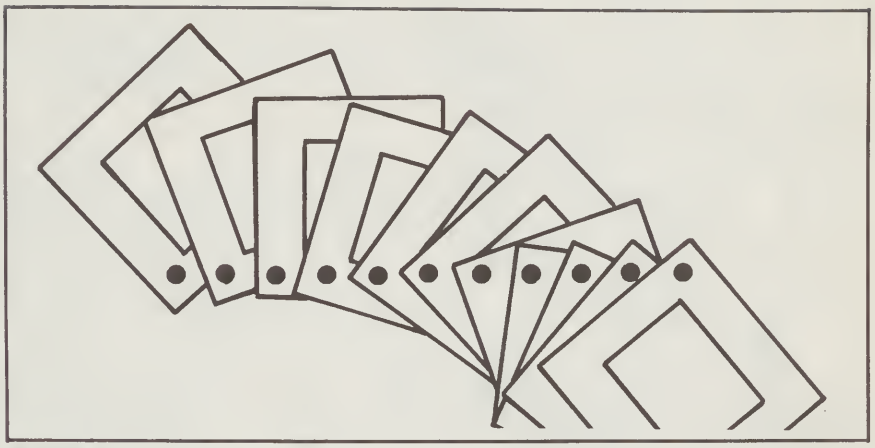


FIGURE 2

The Mechanics

It is better to make a new slide than to show an old, scratched and dull slide, which could mar the uniformity of a presentation. Likewise, a bright rather than a dark illustration will eliminate the need to reduce room lighting just to make the figures visible.

Before slide material is given to the medical illustration department, it must be checked thoroughly for spelling mistakes and errors in the data. Such errors, when projected, are conspicuous and destroy the lecturer's credibility.

When filming, the illustrator should make sure that the entire message is in focus. It is distracting to see a lecturer struggling to focus different segments of a slide. Sometimes uneven focusing can be due to warping of the slide because of age. Finally, the slides should be made several days before the lecture so that they can be reviewed, allowing enough time to prepare replacements in case of errors.

Before the lecture begins, it is the responsibility of the person operating the equipment to know where the switch for the center lights is located and to make sure the pointer lights and remote control switches are working. It may also be desirable, in some instances, to have spare equipment available.

To make certain that a slide will project correctly, the lower left-hand corner should be marked with a red circle (*Figure 2*). When the slide is inserted into the projector tray, the red circle should be in the upper right-hand corner.

The Presentation

It is useful to project a title slide with the topic to be discussed, the name of the speaker, and his or her academic affiliation. Obviously, a slide should remain projected long enough for the audience to read its contents. It takes about 10 seconds to read five lines on a slide.

Slides should be projected for at least 15 seconds, depending on the complexity of the information. Unlike reading, the lecturer sets the pace of learning for the audience. If the slides are advanced too rapidly, the audience will lose interest.

Going back and forth between slides should be avoided. If it is decided ahead of time that it is necessary to refer to a particular slide more than once, a duplicate should be prepared and inserted in the proper sequence.

The total number of slides should not exceed one per minute of the lecture. The current trend of lecture delivery involves using slides as lecture notes as well as presenting supportive evidences. If lecture notes are used separately, there should be synchronization between the material presented and the supportive facts projected on the screen.

Other Tips

When a slide is projected, the audience has a tendency to pay more attention to the slide than to the lecturer.

Rushing through slides to stay within the allotted time of the lecture should be avoided.

Too many slides with humorous pictures or messages might keep the audience awake and entertained but will not give them a feeling of continuing education.

A final slide with a concluding remark will give a sense of completeness to the lecture.

Summary

The careful preparation of good slides requires a certain investment of time, effort and imagination. When making slides consider the audience and make sure that the slides deliver a message that can be understood. After all, members of the audience are giving their precious time and money to attend the lecture.

Recommendations: Indiana Association of Pathologists

Laboratory Tissue and Record Retention
December 11, 1982

CLINICAL PATHOLOGY	IAP RECOMMENDATION
A. Chemistry	
1. Reports, Inpatients	Two Years
2. Reports, Outpatients	Two Years
3. Log Books	Two Years
4. Quality Control Work Sheets	Two Years
5. Maintenance Records	Life of Instrument
6. Plasma and Serum	Two Days
B. Hematology	
1. Reports, Inpatients	Two Years
2. Reports, Outpatients	Two Years
3. Bone Marrow Slides and Reports	Two Years
4. Blood Smears	Fourteen Days
5. Quality Control Records	Two Years
6. Maintenance Records	Life of Instrument
7. Log Books	Two Years
C. Microbiology	
1. Reports, Inpatients	Two Years
2. Reports, Outpatients	Two Years
3. Log Books	Two Years
4. Routine Culture	—
5. Acid Fast & Fungus Cultures	—
6. Quality Control Records and Worksheets	Two Years
7. Maintenance Records	Life of Instrument
8. Bacti Slide	—
D. Immunology	
1. Reports, Inpatients	Two Years
2. Reports, Outpatients	Two Years
3. Log Books	Two Years
4. Quality Control Records	Two Years
5. Maintenance Records	Life of Instrument
E. Blood Bank	
1. Records and Lab Reports	Five Years
2. Quality Control Records and Worksheets	Five Years
3. Maintenance Records	Life of Instrument
4. Serum & Cells (Donor-Recip.)	Seven Days
5. Post-transfusion Bag	Seven Days
6. Donor Records	Five Years

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A. Surgical Pathology	
1. Wet Tissue	Four Weeks
2. Paraffin Blocks	Five Years
3. Slides	Twenty Years
4. Reports, Inpatients	Twenty Years
5. Reports, Outpatients	Twenty Years
6. Log Books	Two Years
7. Maintenance Records	Life of Instrument
B. Cytology	
1. Slides, Normal	Five Years
2. Slides, Abnormal	Ten Years
3. Reports, Inpatients	Five Years
4. Reports, Outpatients	Five Years
5. Reports, Abnormal	Ten Years
6. Log Books	Two Years
7. Maintenance Records	Life of Instrument
C. Autopsy	
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2. Paraffin Blocks	Five Years
3. Slides	Five Years
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6. Maintenance Records	Life of Instrument

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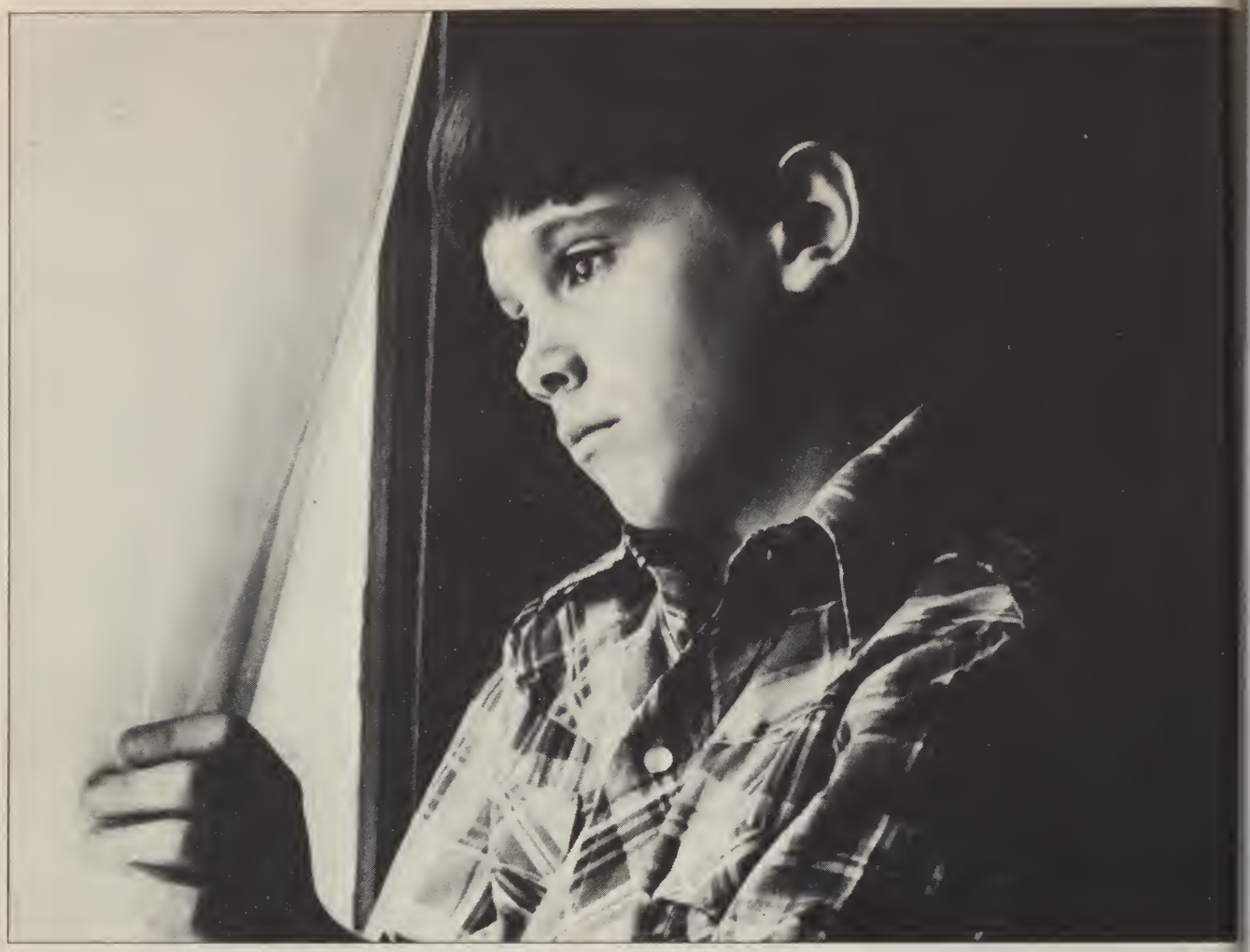
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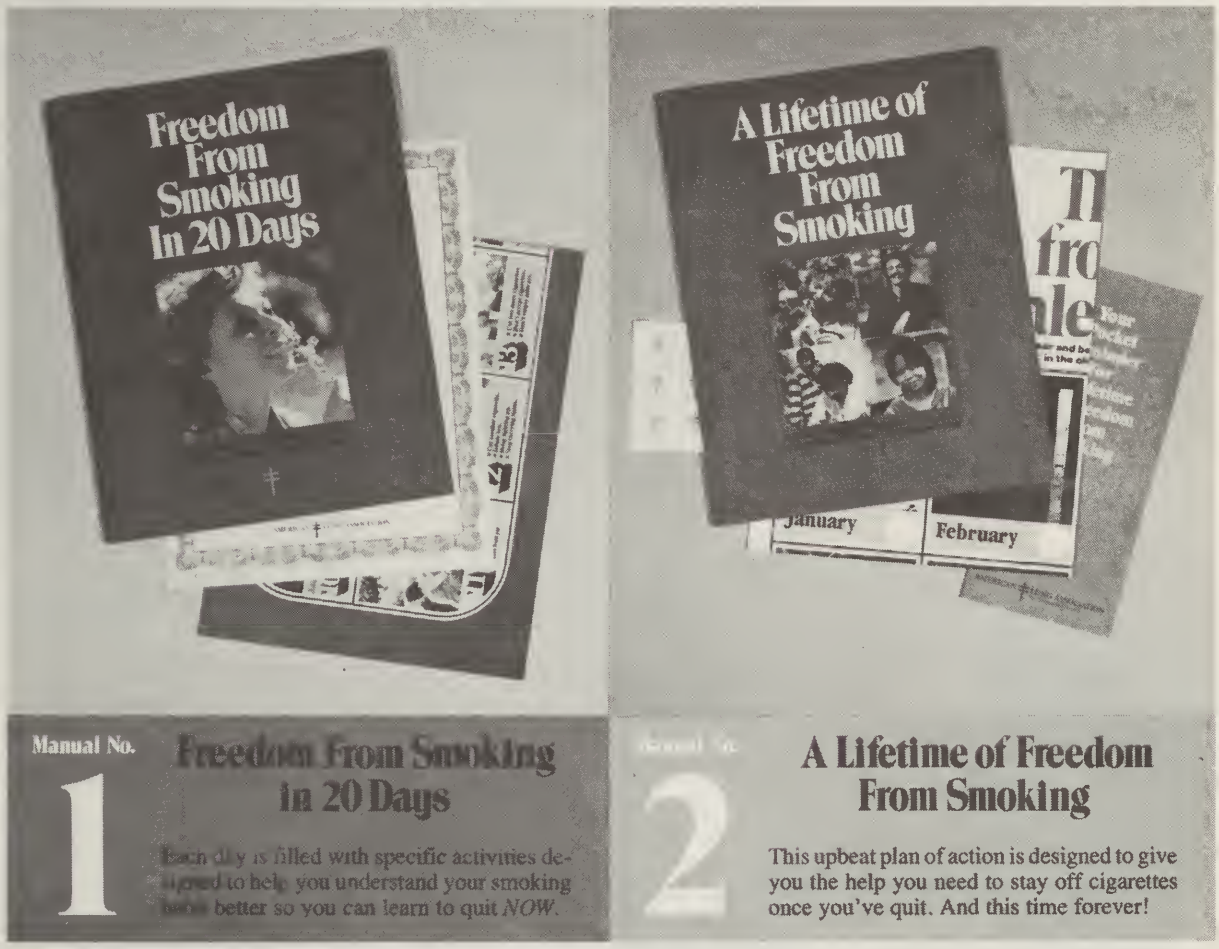
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13th International Congress of Chemotherapy—Aug. 28-Sept. 2, sponsored by the Institute for Cancer Research, University of Vienna, Vienna, Austria. Contact Prof. Dr. Med. K. Karrer, President, Institute, University of Vienna, Borschkegasse 8a, A-1090, Vienna, Austria.

Continuing Education Materials

Endometrial Carcinoma: Pathologic Factors in Assessing Biologic Behavior—34 minute videotape, Cat. #84-047-2-13-09. Speakers include Alan B.P. Ng., M.D., Professor of Pathology and Obstetrics and Gynecology; Director of Surgical Pathology and Cytology, University of Miami School of Medicine; and James W. Reagan, M.D., Professor of Pathology and Reproductive Biology; Director of Surgical Pathology and Cytology, Case Western Reserve University. The complete package for continuing medical education includes a videocassette, a program monograph, a post-test for CME credit, an answer sheet, and 35 mm slides for post-test review. The videocassette includes numerous pathology slides of very high quality.

The videotape demonstrates the various form of endometrial carcinoma and discusses therapeutic regimens and prognoses based on the nature, grade and extent of these lesions. This videotape is useful to practicing physicians, oncologists, residents in pathology and medical students.

Formats for ordering: ¾-inch U-Matic videocassette; ½-inch BETA I videocassette; ½-inch BETA II videocassette, or ½-inch VHS. To order: rental, $60 per month; purchase, $275; send orders to American Society of Clinical Pathologists, Education Projects Division, 2100 W. Harrison St., Chicago 60612; Attention: Ava Cohnm, Marketing Assistant.

The Primary Care Physician and Cancer—two 90-minute cassettes with a table of contents for locating individual topics and speakers who participated in the American Cancer Society National Conference on the Primary Care Physician and Cancer; Code #3740, 1982. Topics include: cancer prevention, early detection, diagnosis and management, gynecologic cancer, colorectal cancer, breast cancer and follow-up by the primary care physician. Suggested audiences include physicians, medical students, dentists, nurses, nursing students and allied health professionals.

To purchase the tape, contact the American Cancer Society, Indiana Division, 4755 Kingsway Dr., Suite 100, Indianapolis 46205.

Oncology Literature News—a monthly publication that summarizes recent reports in the world cancer literature of clinical significance to the physician. A key-word computer scan is made of current titles in more than 5,000 medical journals each week in order to collect the current world literature on oncology. From these, 16 to 20 of those which have important implications for the clinician are selected to be summarized. Each summary is accompanied by a complete journal reference and, on the back cover, addresses for reprints for easy follow-up on any of the reports. This subscription-only newsletter is a worthwhile project of value to oncologists and other physicians involved in the management of the cancer patient. Subscriptions are available by writing *Oncology Literature News*, 50 Route 9, Morganville, N.J. 07751; cost is $65 per year.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy,* Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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References: 1. Shaw S, Lieber CS: Nutrition and alcoholism, chap. 40, in *Modern Nutrition in Health and Disease*, edited by Goodhart RS, Shils ME. Philadelphia, Lea & Febiger, 1980, pp. 1220, 1237. 2. Watkin DM: Nutrition for the aging and the aged, chap. 28, in *Modern Nutrition in Health and Disease, op. cit.*, p. 781. 3. Shils ME, Randall HT: Diet and nutrition in the care of the surgical patient, chap. 36, in *Modern Nutrition in Health and Disease, op. cit.*, pp. 1084, 1089, 1114. 4. Dixon RE: *Ann Intern Med 89* (Part 2): 749-753, Nov 1978. 5. Committee on Dietary Allowances, National Research Council: Recommended Dietary Allowances, ed 9. Washington, National Academy of Sciences, 1980, p. 13.

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THE MULTIVITAMIN/MINERAL FORMULATION

RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

New information from
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Indiana State Board of Health
1330 W. Michigan St.,
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

Pollution Control Program Improves State's Air Quality

The Pollutant Standards Index (PSI) evolved from the efforts of a national committee to study and standardize different methods of publicly reporting the health effects of airborne pollution. The PSI converts data on ambient concentrations of five pollutants—sulfur dioxide, total suspended particulates, carbon monoxide, nitrogen dioxide, and ozone—in a single value on a scale of 0-500. The pollutants are monitored at population-oriented locations where the maximum concentration for a particular pollutant is expected to occur. The public within each community can then be made aware of air quality to which it is exposed.

PSI has been reported by local air pollution control agencies since 1980 for urban areas with a population of 500,000 or more—including East Chicago, Gary, Hammond, and Indianapolis—in accordance with federal regulations. PSI now must be reported in urban areas with a population of 200,000 to 500,000 (as of Jan. 1, 1983). These areas include Evansville, South Bend and Fort Wayne.

The main purpose for PSI is to present urban air quality on a consistent basis. PSI is not used to rank cities. The number is designed for the daily reporting of air quality to advise the public of potentially acute health effects.

The PSI reported in the news media contains information on the reporting area(s), the reporting period, the critical pollutant, the single value number, and the descriptor word.

In most instances, the PSI reading is in the "moderate" or "good" range throughout Indiana. If it is ever in the "unhealthful," "very unhealthful," or "hazardous" range, physicians' advice may be sought by at-risk patients. At-risk patients are individuals with asthma, bronchitis, chronic respiratory disease, and heart disease.

The descriptor "unhealthful" is used when the PSI is between 100 and 200 (on the scale to 500). The general health effects include mild aggravation of symptoms in at-risk patients, with irritation in the healthy population. When the PSI is "very unhealthful" (200 to 300), significant aggravation of symptoms and decreased exercise tolerance may be experienced by people with heart or lung diseases, and widespread symptoms may be experienced by the healthy population.

In the low "hazardous" PSI (300 to 400) range, premature onset of respiratory diseases may occur, along with significant aggravation of symptoms and decreased exercise tolerance in healthy people.

In the emergency "hazardous" (400 to 500) phase of PSI, premature death of ill and elderly people may occur. Healthy people may experience symptoms that may adversely affect their normal activity.

Evidence for human health effects of air pollutants comes from three sources:

1. data derived from animal experiments,
2. data from the limited range of ethical and practical experimental human exposure, and
3. data from epidemiologic studies of exposed human populations both in the community and workplace.

Accumulating evidence points to a relationship between exposure to the five pollutants and adverse health effects on patients.

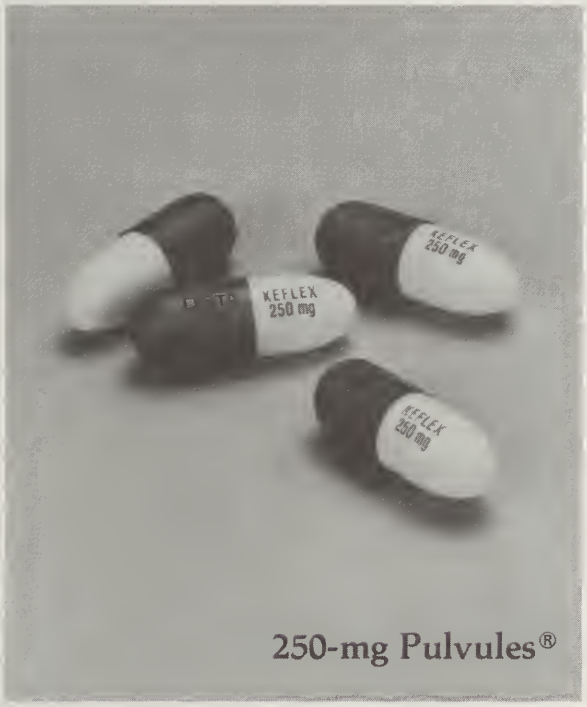
Physicians may occasionally be contacted by at-risk patients experiencing exacerbation of symptoms when the air is "unhealthful" or worse. The American Lung Association recommends:

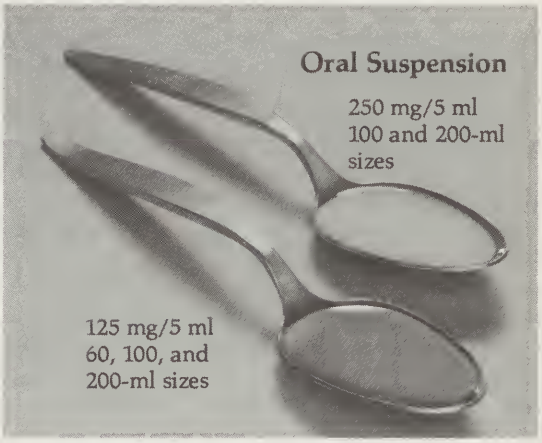
1. Remain indoors in a room with the windows closed to keep out some of the polluted air. If the room temperature or humidity is high, use an electric fan or air conditioner to circulate air within the room.
2. Do not smoke, and avoid rooms where others are smoking.
3. Eliminate unnecessary physical exertion.
4. Observe precautions recommended by your local health department or air pollution control agency.
5. Contact your physician if you are coughing or having difficulty in breathing.

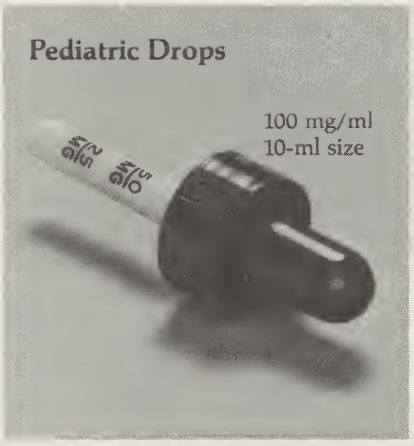
During periods of high pollution levels, people who must go outdoors may wish to purchase inexpensive charcoal-impregnated face masks to protect themselves from harmful effects.

The Indiana air pollution control program has made great progress in improving air quality for the people of Indiana as research continues on the effects of air pollution on people. The Indiana State Board of Health, Division of Air Pollution Control, is working diligently to control the sources of air pollution. For additional information contact Harry Williams, 317-633-0610.

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AUXILIARY REPORT

Karen (Mrs. Robert M.) Schleinkofer
President, ISMA Auxiliary

I would like to feature an auxiliary in the southern area of the state, the Knox Co. Auxiliary in Vincennes. On Dec. 4, 1982, this medium-sized auxiliary of 47 members sponsored its 14th Annual Holiday Charity Ball.

This is the one big money making project of the auxiliary that has benefited the local Good Samaritan Hospital to the tune of about $90,000. Having a project of this magnitude helps to keep the auxiliary unified and active.

Committees are selected in the spring. A theme is then chosen by the decorations committee, whose members work through the year planning, and making decorations. This year's theme was "Twelve Days Of Christmas." The ball was held in the Vincennes Holiday Inn's Holidome. All around the room, you could see scenes depicting certain phases of the ever popular holiday song. There were French hens, calling birds, golden rings, swans, geese, lords and ladies and, yes, there were partridges in pear trees! The table centerpieces were wooden cut-out trees with pears tole-painted on them by auxiliary members, and on the top of each tree was perched a partridge. Christmas greenery and amber votive candles completed the table setting. The decorations committee held weekly workshops with as many auxiliary members as possible present to work on the projects.

The hospital engineering staff assists us each year with the technical and heavy work—which is so greatly appreciated.

An invitation list was developed years ago and is up-dated each year, adding newcomers and new businesses. They are sent out in October. The public is reminded each year that the ball is open to everyone. It is a super way to start the holiday season. There are numerous cocktail/dinner parties about town and at the local restaurants before the ball.

Publicity appeared in the local newspaper, the hospital newsletter, various business marquee/billboards, radio stations, and information was spread by the all important word-of-mouth of past patrons. This past year, the auxiliary members planned a pre-Charity Ball cocktail party that was featured in the newspaper as full page coverage with pictures and recipes the week before the ball. This was a new twist to the publicity angle and was well received by the public.

There was live entertainment from 9 p.m. until 1 a.m. An anonymous donor has paid for the musical entertainment and stage lighting for the last several years. Numerous other persons and businesses have been most generous in helping make the Charity Ball a success story.

After the ball, all items not retained for future use are sold at a public sale. This really helps defray the decorating expenses.

Last year, $9,200 was donated to the hospital from the 1981 ball proceeds. It was set aside to help furnish the new chapel. An on-going project is a Toy & Equipment Fund for the Pediatrics Department.

The Knox Co. Auxiliary is the success story behind the Vincennes Holiday Charity Ball. They do the planning and the work and then with the concerned community, which gives its support and involvement, the ball has become a very successful fund raising project. Congratulations!

INDIANA STATE MEDICAL ASSOCIATION AUXILIARY

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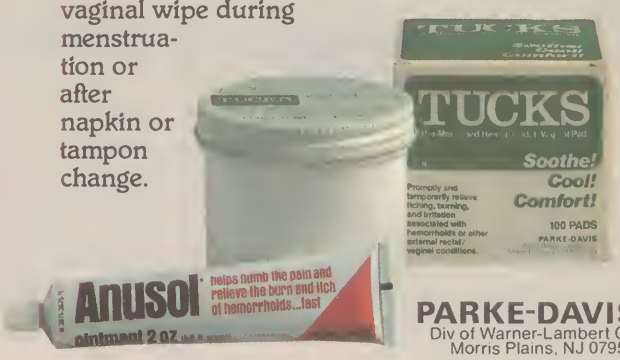
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FUTURE FILE

Indiana University CME

For the primary care physician:

April 8—Gastroenterology—Terre Haute

April 14—The Elderly Patient: Critical Issues and Medical Care—Reid Memorial Hospital, Richmond

April 20—Dermatology Update

April 20—Arthur B. Richter Conference in Child Psychiatry and Child Development

April 23—Acute and Chronic Disorders of the Spine—LaPorte

May 24-26—Family Practice Review, Part I

June 28-30—Family Practice Review, Part II

For the specialist:

April 9—Pediatric Anesthesia

April 11, 12, 13—Two-Dimensional Echo Workshop

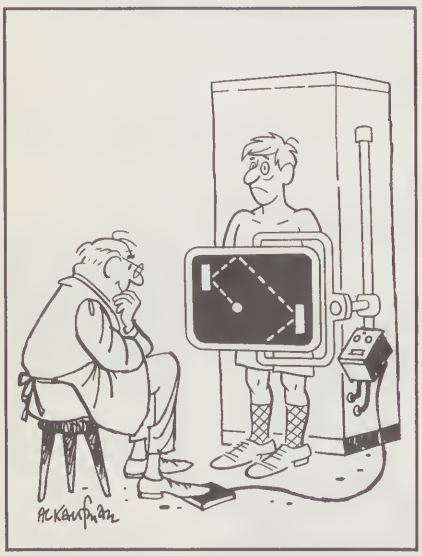
April 27-29—Newer Diagnostic Imaging Modalities in Clinical Practice

For more information, contact the CME Division, I.U. School of Medicine, (317) 264-8353.

Clinical Neurology

Vanderbilt University School of Medicine will conduct its sixth annual Symposium on Contemporary Clinical Neurology July 19 to 23 at the Hyatt Hotel, Hilton Head Island, S.C.

Write Mrs. Joan Sullivan, Department of Neurology, Vanderbilt University, Nashville, Tenn. 37212.



The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Child Care Conference

The 18th annual Indiana Multidisciplinary Child Care Conference will be held at the Hyatt Regency Hotel in Indianapolis May 18 and 19.

The speakers and subjects will include Drs. Allen Drash and Michael Golden—Diabetes; Dr. Morris Green—Psychosocial Aspects of Child Health; Drs. Gerald M. Loughlin, Howard Eigen and Peter Scott—Pediatric Intensive Care—A Practical Update; Dr. Lyle J. Micheli—Sports Medicine; Drs. Kenneth Sladkin and Donald Dian—A Pelvic Exam Practicum; Dr. Esther Wender—Learning Disorders; and Dr. Paul Wehrle, banquet speaker, "The Role of the American Academy of Pediatrics in Fostering Child Health."

For further information, write Dr. Morris Green, Riley Hospital for Children, 702 Barnhill Drive, Indianapolis 46223.

Harvard CME Course

A CME course on "Waking, Sleeping and Dreaming: Physiology, Psychology and Pathology" is offered by Harvard Medical School. It will be conducted April 7 to 9 at the Parker Hotel, Boston. The fee for physicians is $275. Write or call Harvard Medical School, CME, Boston 02115—(617) 732-1525. Sixteen credit hours, Category 1.

Alcohol, Drug Abuse

"Clinical Decision Making in Alcoholism and Drug Abuse," conducted as part of the Smithers Physicians Education Program, will be held June 6-10 at St. Luke's-Roosevelt Hospital Center, New York City. Contact Andrew J. Gordon, Ph.D., at the hospital, 428 W. 59th St., New York, N.Y. 10019—(212) 554-6725.

Kentucky CME Courses

The University of Kentucky College of Medicine announces the following CME courses, all of which will be held at the Hyatt Regency Hotel, Lexington, Ky.

14th Family Medicine Review, Session II—May 22-27;

Genetic Aspects of Common Genetic and Malformation Disorders—June 2-3;

12th Update in Ob-Gyn—June 8-10.

For additional information, contact Frank R. Lemon, M.D., College of Medicine, University of Kentucky, Lexington 40546—Phone (606) 233-5161.

Indiana AAPS Meeting

The Indiana Chapter of the Association of American Physicians and Surgeons will meet at Laughner's Cafeteria, U.S. 31 South just off I465, at 3 p.m. on April 16. All members of ISMA are invited to attend the panel discussion at 4 p.m. for addresses by Kent Masterson Brown, a constitutional lawyer from Lexington, Ky., and Dr. Donald C. Quinlan, a British-trained physician and internist from Chicago. A business meeting is scheduled at 3 p.m. The annual AAPS spring dinner will be served following the program. No reservations are required.



How's the diet working?

Behavioral Neurology

Vanderbilt University School of Medicine will conduct its First Symposium on "Behavioral Neurology: Higher Cortical Functions and the Brain" on June 2 to 4, 1983. For full information write to Mrs. Joan Sullivan, Vanderbilt University School of Medicine, Nashville, Tenn. 37212.

Spinal Manipulation

"Current Concepts and Rationale for Spinal Manipulation" is the subject of an all-day CME program at the Red Carpet Hotel and Convention Center in Milwaukee on June 11. The program is directed to physical therapists and physicians. The instructor will be Stanley Paris, director of the Atlanta Back Clinic, who has 20 years experience in physiotherapy of the back. The tuition is $49. Write or phone Mary Jensen, P.O. Box 133-L, Franksville, Wisc. 53126—(414) 886-0116.

Common Human Tumors

"Diagnosis and Treatment of Common Human Tumors" will be the subject of a conference conducted by the American Cancer Society, Kentucky Division, at the Hyatt Regency in Lexington, Ky., April 21 to 23.

The correspondent is John R. van Nagell, Jr., M.D., University of Kentucky Medical Center, Lexington, Ky. 40536.

Peripheral Vascular Symposium

The 13th annual Peripheral Vascular Disease Symposium will be conducted by St. Anthony Hospital at the University Hilton Inn, Columbus, Ohio, Sept. 7 to 10. The fee for physicians is $250. CME credit 19 hours, Category 1. Write or call Pat McGlone, RN, 1450 Hawthorne Ave., Columbus, Ohio 43203—(614) 251-3680.

Breast Cancer

The American Cancer Society National Conference-Breast Cancer-1983 will be held May 19 to 21, at the Boston Sheraton Hotel, Boston. The meeting is rated at 16½ hours Category 1.

Write to Nicholas G. Bottiglieri, M.D., American Cancer Society, 777 Third Ave., New York, N.Y. 10017.

AMA Communications Conference

"Health Reporting/Radio-TV Conference" is the subject of an AMA four-day meeting May 12-15 in Boston. Registration deadline is April 12. Call collect (312) 751-6604 for more information. CME Category 1 credit. Fee for AMA members is $200. The program is on a workshop plan with expert evaluation of the work. Choice of level I and level II courses. Subject matter is oriented for physicians or reporters. Sheraton-Boston Hotel, Prudential Center, Boston—(617) 236-2000.

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BOOK REVIEWS

The Science of Photomedicine

Edited by James D. Regan and John A. Parrish. Copyright 1982, Plenum Press, New York. 658 pages, with illustrations, $45.

Even preliterate cultures appreciated the healing properties of sunlight. And in the nineteenth century, heliotherapy was used enthusiastically to treat rickets, TB, and some skin disease. Photomedicine today has emerged into a complex science based on molecular photobiology and sophisticated electrooptical capabilities. Synthetic photo activated organic molecules can act as diagnostic probes or therapeutic agents. Most of the reactions of interest take place in the skin, blood, and immune system. Accordingly, this book concentrates on how these organs and their constituents respond to nonionizing electromagnetic radiation.

Both short and long term consequences—harmful as well as beneficial—are described in detail. Several thousand scientific articles are collated. For a field that started 100 years ago (from chance observations that sunlight improved certain diseases), it is startling that so much is now known about the molecular mechanisms of phototherapy. The essay on photodynamic inactivation of Herpes virus (after first making Herpes photosensitive by heterocyclic dyes) frankly discusses the cancer transformation risks along with the benefits of this treatment modality. As such it typifies the central theme of this text: It is prudent to retain a certain skepticism about the ultimate effects and safety of phototherapy until medical science and its companion disciplines know more about the biologic impact of nonionizing electromagnetic radiation.

Alan T. Marty, M.D.
Evansville
Cardio-Vascular Surgery

Current Obstetric & Gynecologic Diagnosis & Treatment

4th Edition, edited by Ralph C. Benson, M.D. Copyright 1982, Lange Medical Publication, Los Altos, Calif. 1,038 pages, softcover, $25.

Most medical students, and now a great many practicing physicians, have learned to count on the yearly soft cover Lange texts for concise, but sufficiently comprehensive, updated information in all of the medical specialties. The 1982 edition on obstetrics and gynecology will not disappoint them. The group of 40 or so authors assembled by Dr. Ralph C. Benson, Professor and Emeritus Chief of Ob/Gyn at Oregon University School of Health Sciences, is an impressive one.

Among them is Jack W. Pearson, M.D., Professor of Ob/Gyn, Indiana University, whose chapter on Preoperative and Postoperative Care offers the best overall coverage of the subject that this reviewer is aware of. Systemic disorders that constitute special risks such as cardiovascular disease, known or suspected phlebothrombosis, respiratory disease, diabetes mellitus, hyperthyroidism, anemia, etc. are discussed adequately. Also, the hazards of pregnancy, obesity, advanced age and drug sensitivities receive proper attention.

In post-operative care the importance of the early recognition and prompt treatment of shock, the proper use of I.V. fluids, precision in the use of antibacterial therapy, and life support in pulmonary and cardiac emergencies are adequately covered.

In the chapter on pelvic infections by Drs. F. Gary Cunningham and Abe Mickal the increasing importance of chlamydia in infections of both the female and male genital tracts is emphasized. Herpes and other viral infections are discussed in the chapter on Disorders of the Vulva and Vagina. Acyclovir is mentioned as possibly effective in herpes genitalis used several times daily as a topical ointment, but apparently it is ineffective for this condition used systemically.

In the section on Marriage, Marital Counselling and Sex Therapy some startling facts are revealed. The number of couples living together but unmarried had increased 8 fold between 1960 and 1970. In the subsequent decade, of course, the increase is even greater but official census figures are not in.

The author reveals that 93% of the adult population are or have been married. 40% of the marriages have ended in divorce, though some divorced couples have successfully remarried. All practitioners of medicine are at one time or another called upon to give advice on many aspects of the marriage relationship. Non-Ob/Gyn physicians should find this chapter helpful.

Taken altogether, after even a superficial perusal of this volume, one must agree that it successfully lives up to the high traditions of the Lange series as eminently useful books for medical students and practicing physicians.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine



The exercise books are all upstairs.



"I wish my sixth grade teacher could see me now. She flunked me in sex education"

Look-Alike and Sound-Alike Drug Names

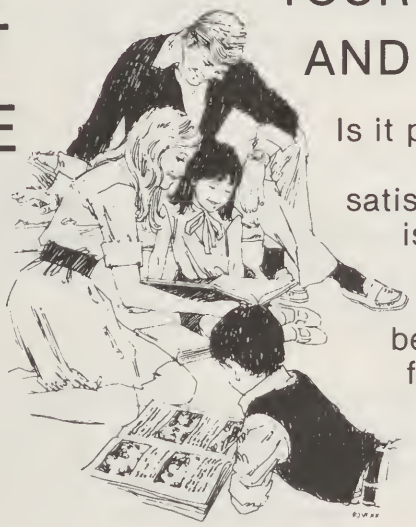
BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	PERCODAN	PERCORTEN
Category:	Analgesic	Adrenal cortical steroid
Brand Name:	Percodan, Endo	Percorten, Ciba
Generic Name:	(combination drug)	Desoxycorticosterone
Dosage Forms:	Tablets	Pellets, Repository injection

	DELALUTIN	DILANTIN
Category:	Progestin	Anticonvulsant
Brand Name:	Delalutin, Squibb	Dilantin, Parke-Davis
Generic Name:	Hydroxyprogesterone Caproate	Phenytoin
Dosage Forms:	Injection	Tablets, Oral suspension, Injection

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Bequests, legacies, devises, transfers or gifts to the Foundation or for its use are deductible for federal estate and gift tax purposes, in accordance with the Internal Revenue Code.

The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

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CME QUIZ

Antihypertensive Therapy

CONTINUED FROM PAGES 171-176

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. An increase in blood pressure cannot be induced by:
   a. volume expansion
   b. anemia
   c. vasoconstriction
   d. sympathetic nervous system stimulation

2. The major side effect of diuretic therapy is:
   a. hyperpigmentation
   b. hypokalemia
   c. hyperbilirubinemia
   d. hypouricemia

3. Repletion of diuretic-induced potassium loss cannot be accomplished by:
   a. dietary potassium sources
   b. potassium-sparing agents
   c. potassium supplements
   d. multiple vitamins

4. Direct-acting vasodilators (Apresoline, Loniten) often cause:
   a. tachycardia
   b. constipation
   c. depression
   d. Raynaud's phenomenon

5. An antihypertensive agent recently approved for use in resistant congestive heart failure is:
   a. Inderal
   b. Aldomet
   c. Ismelin
   d. Capoten

6. The antihypertensive agent listed below which is most likely to cause depression is:
   a. Dyazide
   b. Apresoline
   c. reserpine
   d. Capoten

7. Which of the following antihypertensive agents usually requires more than a single daily dose?
   a. Aldomet
   b. Hygroton
   c. reserpine
   d. Corgard

8. The single agent most likely to control blood pressure in an uncomplicated American hypertensive is:
   a. Apresoline
   b. Catapres
   c. Hydrodiuril
   d. Inderal

9. Which of the following is a "second step" antihypertensive agent?
   a. Ismelin
   b. Minipress
   c. Loniten
   d. Apresoline

10. Using the algorithmic (stepped-care) approach to antihypertensive therapy, it should be possible to achieve blood pressure control in what proportion of patients?
    a. 5%
    b. 100%
    c. 20%
    d. 95%

February CME Quiz Answers

Following are the answers to the CME quiz that appeared in the February 1983 issue of THE JOURNAL: "Digital Vascular Imaging," by Frank E. Rabe, M.D., and Gary J. Becker, M.D.

1. d	6. a
2. a	7. a
3. c	8. c
4. c	9. c
5. b	10. a

Answer sheet for Quiz: (Antihypertensive Therapy. . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for this month's quiz, send your completed, signed application before Apr. 10, 1983 to the address appearing at the top of this page.

More Impertinent Pearls, or Arata's Rules



L. A. ARATA, M.D.
Shelbyville

THE MAY 1979 issue of THE JOURNAL subjected readers to a collection of impertinent pearls that this writer had accumulated. Now, I submit more of the same for pearl collectors to ponder.

1. Thick chart syndrome is usually depression. We are all plagued at times with the patient who has multiple complaints for which we find (if we search diligently enough) some abhorrent lab reports or x-rays showing minor variations from our pre-conceived "normals." So we treat and repeat test and treatments until we arrive at the true diagnosis of *Thick Chart Syndrome.* My contention is that *Thick Chart Syndrome* equals depression. Treat the depression appropriately, and the chart will grow thicker at a greatly decelerated pace.

2. Differences of opinion among doctors vary with the square of the number of doctors involved: three doctors=nine opinions; six doctors=36 opinions. We, of course, understand this simple fact of doctoring, but it is somewhat confusing to those of less intellectual capacity—such as bureaucrats, politicians, and hospital administrators.

3. The patient who tells the doctor "I'm a nervous wreck" is depressed until proven otherwise. Save the barium enemas and T3's, etc., until the patient has had a couple of weeks of antidepressant medication. You will save most of them several hundred dollars worth of unnecessary tests.

4. Never belittle the "series of one" cases. I am unaware of any medical advance or progress that did not start out in such a manner. Likewise, be wary of the series of "hundreds of cases." Perhaps the author is trying to hide his ignorance behind a smoke screen of statistics.

5. Only recently did I come to realize that 50% of the people with marble slabs marking their graves were folks who kept secrets from their doctors and who failed to follow instructions. Of course, the other 50% gave accurate histories and followed orders carefully. Sobering thought!

6. Be extremely careful about criticizing another doctor. Just might be that he saw something or knew something about the patient that I fail to see or find out. There were no idiots in my medical class to start with or to end with. That M.D. degree indicates that the owner has a good brain. He might even be smarter than I (or you)!

7. People who make other people's business their own are certainly a pain in the neck. Did you ever stop to pity them? They deserve our pity, for their lives and business are so petty that it takes only a small part of their time to mind their own affairs. That leaves them much time to spend making pains of themselves. I find that the important and worthwhile folks find that minding their own business is nearly a 24-hour-a-day job. So, pity the petty.

8. At last! Eureka! I have discovered the reason that the 250 lb. diabetic who maintains her weight despite a 1500 calorie diet weighs in at 255 lbs. the next time you see her. She swears she sticks to her diet religiously, but cannot lose any pounds. The answer is simple: She eats her diet either before or after her meals! No effort on our part can convince her that her diet is a substitute for her meals. Of course, the same situation exists in the male diabetic, and in the obese non-diabetic. It has taken me 25 years of observation to find this pearl—but I found it at last.

I enjoy collecting and scattering pearls—but can't someone else help out? Please!

NEWS NOTES



MEMBERS OF THE ISMA SUBCOMMISSION on Insurance review preliminary renewal underwriting comments with representatives of Lincoln National Life Insurance Co. Discussing details are (from left, clockwise) Dr. Dwight W. Schuster; Bob Sullivan, staff; Keith Phelps, Earl Williams and Jim Townsend, Lincoln; Dr. Francis W. Price Jr.; and Dr. John D. MacDougall, subcommission chairman. The subcommission was informed that ISMA members, spouses and children have a longer length of stay in hospitals, one of the reasons monthly claims have exceeded the amount available to pay those claims. PHOTO BY JOYCE WOLF

Arthritis Rehab Program

Winona Hospital, Indianapolis, announces a team oriented arthritis rehabilitation program. It is designed for convenience and cost effectiveness and provides the patient with a multi-faceted care plan. The team includes a rheumatologist, an orthopedic hand surgeon, an orthopedic surgeon, physical and occupational therapists and other specialists as needed.

Admission is by physician referral. The primary care physician automatically becomes a team member. Initial evaluation and a team conference are completed in one morning. All specialists and services are available in one location. Cost effectiveness is maintained by eliminating the fees for several initial evaluations.

Child Development Award

Dr. Morris Green, Indianapolis, Lesh Professor of Pediatrics, has received the C. Anderson Aldrich Award in Child Development. Established in 1964 by the American Academy of Pediatrics, the award is considered one of the highest honors for a pediatrician.

Dr. Green is physician-in-chief at the James Whitcomb Riley Hospital for Children. He is a 1944 graduate of Indiana University School of Medicine.

Agent Orange Study

The Veterans Administration will advance $3 million to the Centers for Disease Control to launch an Agent Orange study. The VA hospital facilities are continuing with clinical care of Vietnam veterans concerned about exposure to Agent Orange. The agency is also continuing the biomedical research program on the possible long-term effects related to herbicides.

Student Loan Fund Grant

The Indiana State Medical Association has presented a check for $4,220.43 to the Indiana University Foundation, which will use the funds to administer the ISMA Medical Student Loan Fund.

The Student Loan Fund, a charitable trust, was established by ISMA to provide financial assistance to students at the Indiana University School of Medicine.

Since 1981, $5 has been allocated to the Fund annually from each ISMA member's dues. The annual interest accrued on the principal amount is then donated to the Foundation.

$3 Million Research Grant

The Robert Wood Johnson Foundation will fund 21 research projects totaling $3 million aimed at improving medicine's capacity to assist impaired, acutely, or chronically ill individuals in regaining or maintaining their functional abilities.

Academic health centers across the country will conduct the research. The projects will draw on knowledge in the biomedical and behavioral sciences. The grants represent the second round funded by the Foundation. The total commitment adds up to more than $6 million.

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NEWS NOTES

Medical Photography

If you are in the medical/healthcare profession and a scientific photographer, you are invited to enter the Fifth Annual American Society of Clinical Pathologists/Eastman Kodak Medical Photography Competition. You may submit up to three entries in each of three categories: gross or macroscopic, microscopic and electron microscopic.

Each entry will be judged on the basis of scientific merit, informational content, composition, image quality and originality. The following awards are given in each of the three categories: 1st prize—$500; 2nd prize—$300; 3rd prize—$150; and two honorable mentions—$50. The winning entries will be displayed at the Society's national meeting and also published in the ASCP's monthly journal, *Laboratory Medicine*. The American Society of Clinical Pathologists and the Eastman Kodak Company sponsor, judge, produce and stage the Medical Photography Competition.

Entries must be submitted no later than June 1, 1983. To obtain an official entry form, write: American Society of Clinical Pathologists, 2100 W. Harrison St., Chicago 60612, Attn: Medical Photography Competition.

AMA Selects Dr. Knote for National Health Study Project

Dr. John A. Knote of Lafayette, president of the Indiana State Medical Association, is one of 18 physicians selected by the American Medical Association to participate in a major health study project. The three-year project, dubbed "Health Policy Agenda for the American People" or "HPA Project" for short, will identify and analyze the nation's major health concerns and formulate national policies.

"In the past," Dr. Knote explained, "the development of policies has been a piecemeal process. The AMA would like to avoid this disjointed approach with a unified, but flexible, approach." By identifying major health issues, Dr. Knote said, the AMA hopes to develop specific action plans responsive to the social, economic, scientific, educational and political circumstances that evolve from year to year.

"Our first step will be to identify basic principles that reflect the private sector's philosophy on various policies encompassed by the health sector. Once these principles are identified," Dr. Knote stated, "a national health policy plan can be established."

The group with which Dr. Knote will be working will focus on medical care delivery mechanisms, including the availability of care, competition and markets, the responsibility to provide care, and governmental responsibility and health planning.



DR. JOHN A. KNOTE (right), ISMA president, presents the ISMA's 1982 physician contribution to AMA-ERF to Dr. George H. Mills, president of the AMA's Education and Research Foundation, during the recent AMA meeting in Miami. ISMA physicians contributed more than $24,000 to the Foundation.

Another Indiana physician, Dr. Malcolm O. Scamahorn of Pittsboro, will also be involved in the study. Dr. Scamahorn, a past president of ISMA, is chairman of the AMA Council on Medical Services and will act as a direct representative of the AMA to the study. He will be investigating health resources in the areas of supply, distribution, facilities, technology and related concerns.

Black Lung Manual

The Federal Black Lung Program changes and updating in regard to automated processing of claims and the coding of diagnoses, standard billing forms and precoded claims are covered in a new Black Lung Program provider manual. Enrollment forms are available for those physicians who are participating in the program. For enrollment forms and copies of the manual write to: Federal Black Lung Program, P.O. Box 34915, West Bethesda, Md. 20817.

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Here and There . . .

. . . **Dr. C. Jules Heritier** is the new president of the medical staff at Whitley County Memorial Hospital, Columbia City; **Dr. John L. Vogel** is secretary-treasurer.

. . . **Dr. Robert A. Porter** of Winchester has been appointed to a four-year-term as Randolph County health officer.

. . . **Dr. Peter H. Scott** of Indianapolis discussed Sudden Infant Death Syndrome during a February SIDS workshop for EMTs in Pittsboro.

. . . **Dr. Phillip R. Dawkins** of Jasper recently discussed colo-rectal cancer for employees of the Jasper Engine and Transmission Exchange.

. . . **Dr. John C. Johnson** of Crown Point has been elected to the Board of Directors, American College of Emergency Physicians.

. . . **Dr. John R. Stanley** of Muncie has been elected to a three-year term as chairman of the Indiana Section, American College of Obstetricians and Gynecologists.

. . . **Dr. John D. Stepleton** of Richmond was among the guest speakers who participated in the Dreyer Foundation symposium at Reid Memorial Hospital in January.

. . . **Dr. Joseph C. Kerlin** of Danville addressed members and volunteers of the Hendricks County Meals on Wheels in January.



My eyes, ears, nose and throat hurt.

. . . **Dr. Robert L. Forste** of Columbus is the new chief of medical staff at Bartholomew County Hospital; **Dr. Donald L. Sandlin** is chief of staff-elect, and **Dr. Larry D. Olson** is secretary.

. . . **Dr. Robert R. Kopecky** of Indianapolis is the new president of the St. Francis Hospital medical staff; **Dr. Gerald C. Walthall** is president-elect, and **Dr. Bruce H. Bender** is secretary-treasurer.

. . . **Dr. Leon L. Blum,** a Terre Haute pathologist, has retired as director of the medical laboratory technology program, Indiana Vocational Technical College, Terre Haute. An annual Leon L. Blum Award for Academic Excellence has been created by the college.

. . . **Dr. George W. Sorrells** of Bedford discussed adolescent substance abuse during the December meeting of the local Family and Community Together (FACT) group.

. . . **Dr. Alfred E. Hollenberg** is the new chief of medical staff at Reid Memorial Hospital, Richmond; **Dr. Richard M. Butler** is chief of staff-elect, and **Dr. Michael A. Hinshaw** is secretary.

. . . **Dr. John L. Reynolds** is the new chief of medical staff at Morgan County Memorial Hospital, Martinsville; **Dr. Robert C. Beesley** is vice-chief of staff, and **Dr. William P. Winter** is secretary-treasurer.

. . . **Dr. Edward Ross,** Indianapolis cardiologist, has been appointed to the founding editorial board of *Vascular Medicine,* a new clinical journal; he will serve as senior editor and a member of the editorial publication committee.

. . . **Dr. Wendell A. Riggs** of Lafayette discussed the medical needs of newborns and infants during a January seminar on child development sponsored by Home Hospital.

. . . **Dr. Leslie M. Bodnar** of South Bend and **Dr. Thomas A. Brady** of Indianapolis have been reappointed by Governor Orr to the Governor's Council for Physical Fitness and Sports Medicine.

. . . **Dr. George T. Lukemeyer** of Indianapolis, ISMA's president-elect, will represent the American College of Physicians on the Joint Commission on Accreditation of Hospitals; the three-year term began Jan. 1.

. . . **Dr. Philip R. Myers** has been commended by the mayor of South Bend for his leading role in establishing the paramedic program in the South Bend Fire Department in 1973.

. . . **Dr. William R. Wells** of Princetown is the new chief of medical staff at Gibson General Hospital; **Dr. Robert K. Foley** is vice-president, and **Dr. M. S. Krishna** is secretary.

. . . **Dr. Samuel R. Thompson** is the new president of the medical-dental staff at St. Joseph's Hospital, Fort Wayne; **Dr. J. Paul Gentile** is president-elect, and **Dr. Shashi Ahuja** is secretary-treasurer.

. . . **Dr. Sheldon J. Friedman** of Noblesville, **Dr. Bruce F. Schilt** of Carmel, and **Dr. Marvin E. Mishkin** of Elkhart have been elected to fellowship in the American College of Cardiology.

. . . **Dr. Raymond L. Newnum,** assistant professor of medicine at the Evansville branch of the I.U. School of Medicine since 1980, has been named director of the Evansville Center for Medical Education; he succeeds **Dr. Patrick J. V. Corcoran,** director since the center opened in 1972.

. . . **Dr. George Alexandrescu,** radiologist at Vermillion County Hospital, Clinton, has retired from the hospital staff and his medical practice.

. . . **Dr. D. Logan Dunlap** of South Bend discussed diabetes at the January meeting of the South Bend Kiwanis Club.



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NEWS NOTES

Sodium Information Offered

To provide consumers with information about their sodium intake, a booklet called "Sodium: Think About It" is being offered free of charge.

The booklet, prepared by the Departments of Agriculture and Health and Human Services, is available from the Consumer Information Center, Pueblo, Colo. 81009.

It was produced because of growing concern about sodium and its relationship to hypertension, according to John McClung, director of Information and Legislative Affairs, U.S. Dept. of Agriculture. This concern, he says, has prompted government and industry to initiate programs to educate consumers about sodium in the diet, to encourage sodium labeling of food products, and to research ways of decreasing the sodium content of processed foods.

Some 60 million Americans—one in four—have some form of high blood pressure. Health and science experts generally recommend that sodium intake be reduced, particularly by hypertensive individuals.



ISMA EXECUTIVE COMMITTEE members discuss proposed Medical Licensing Board rules on professional conduct. Engaged in the discussion are (clockwise) Drs. George T. Lukemeyer, Martin J. O'Neill, John A. Knote, Herbert C. Khalouf, Paul Siebenmorgen and Michael O. Mellinger. ISMA recommendations on the proposed rules were submitted to the MLB prior to the Board's scheduled hearing last month.

PHOTO BY JOYCE WOLF

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OBITUARIES

Oliver R. Wilson, M.D.

Dr. Wilson, 70, a Morgantown physician, died Dec. 23 at Methodist Hospital, Indianapolis.

He was a 1937 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Wilson was a past president of the Morgan County Medical Society and served as an ISMA delegate from 1968-70.

Theodore R. Hayes, M.D.

Dr. Hayes, 77, a Muncie physician and surgeon, died Dec. 26 at Ball Memorial Hospital.

He was a 1933 graduate of Indiana University School of Medicine.

Dr. Hayes was an ISMA trustee during the early 1950s and served six years on the ISMA Commission on Aging. He was certified by the American Board of Urology and was a member of the American College of Surgeons and the American Urological Association.

William A. Kleifgen, M.D.

Dr. Kleifgen, 66, medical director of Medical Protective Company, Fort Wayne, died Dec. 16 at Lutheran Hospital, Fort Wayne.

He earned his M.D. degree in 1950 from Creighton University, Omaha. He retired from active practice in 1977.

Dr. Kleifgen, a World War II Army veteran, was a former ISMA delegate and was a member of the American Academy of Family Physicians.

Douglas E. Glock, M.D.

Dr. Glock, 43, a Marion orthopedic surgeon, died Dec. 14 at Parkview Memorial Hospital, Fort Wayne.

He was a 1966 graduate of Indiana University School of Medicine.

Dr. Glock was a member of the American Academy of Orthopaedic Surgeons and was certified by the American Board of Orthopaedic Surgery.

Richard L. Mason, M.D.

Dr. Mason, 64, a Hammond radiologist, died Dec. 4 in Reno, Nev.

He was a 1943 graduate of Indiana University School of Medicine and was a Navy veteran of World War II.

Dr. Mason, associated with the Whiting Clinic, was certified by the American Board of Radiology. He was a fellow of the American College of Radiology and a member of the Radiological Society of North America and the Society of Nuclear Medicine.

George E. Brown, M.D.

Dr. Brown, 67, a Greenwood physician 37 years, died Dec. 31, 1982 at St. Francis Hospital, Beech Grove.

He was a 1940 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Brown was medical director of Greenwood Village South and was a former member of the Johnson County Board of Health. He was a past president of the Johnson County Hospital medical staff and a past president of the Johnson County Medical Society.

Lisle W. Roose, M.D.

Dr. Roose, 58, a Nappanee physician 28 years, died Jan. 14 at St. Vincent Hospital, Indianapolis.

He was a 1948 graduate of Northwestern University Medical School and was a Korean War Air Force veteran.

Dr. Roose was associated with the Nappanee Family Medical Clinic and was on the staff at Elkhart General Hospital.

Norman F. Peacock, M.D.

Dr. Peacock, 71, a Crawfordsville physician, died Jan. 23 at Culver Hospital, Crawfordsville.

He was a 1936 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Peacock was a member of the American Academy of Otolaryngology.

Kenneth K. Kraning, M.D.

Dr. Kraning, 76, a Kewanna physician since 1935, died Jan. 11 in Dallas, Texas.

He was a 1933 graduate of Indiana University School of Medicine.

Dr. Kraning was a former president of the Fulton County Medical Society and a former ISMA delegate. He was a member of the American Academy of Family Physicians.

Jack H. Oster, M.D.

Dr. Oster, 78, a retired Valparaiso psychiatrist and neurologist, died Jan. 31, 1982.

He earned his M.D. degree in 1928 in Duesseldorf, W. Germany.

Dr. Oster was a member of the ISMA Fifty Year Club and of the American Psychiatric Association.

Walter S. Fisher, M.D.

Dr. Fisher, 87, the first cardiologist to serve Bartholomew County, died Jan. 24 in Columbus.

He was a 1927 graduate of Indiana University School of Medicine and was an Army veteran of World War I.

Dr. Fisher, a member of the ISMA Fifty Year Club, retired seven years ago after practicing in Columbus since 1928. He was a member of the American Academy of Family Physicians.

Robert N. Bills, M.D.

Dr. Bills, 87, a retired Gary surgeon, died Dec. 1 at St. Mary Medical Center, Hobart.

He was a 1920 graduate of Indiana University School of Medicine and was a veteran of World War I.

Dr. Bills was a past president of the Lake County Medical Society, had served as an ISMA delegate, and was a member of the ISMA Fifty Year Club. He was a member of the American College of Surgeons and the International College of Surgeons.

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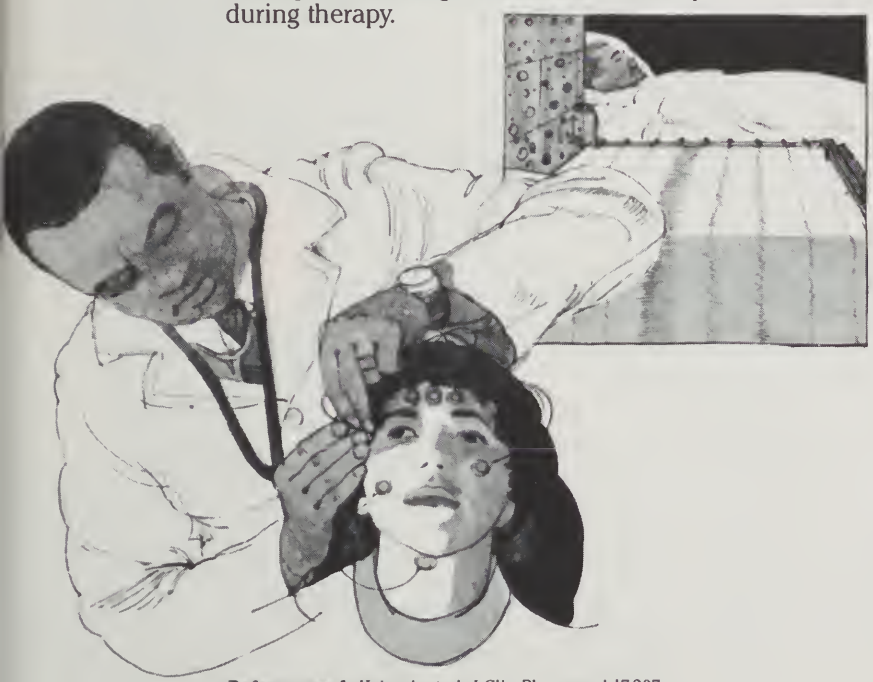
The weight of objective evidence supports the clinical efficacy of Dalmane® Ⓒ



flurazepam HCl/Roche

15-mg/30-mg capsules

- Studied extensively in the sleep laboratory—the most valid environment for measuring hypnotic efficacy.[1-12]
- Studied in over 200 clinical trials involving over 10,000 patients.[13]
- During long-term therapy, which is seldom required, periodic blood, kidney and liver function tests should be performed.
- Contraindicated in patients who are pregnant or hypersensitive to flurazepam.
- Caution patients about drinking alcohol, driving or operating hazardous machinery during therapy.



References: 1. Kales A *et al: J Clin Pharmacol 17*:207-213, Apr 1977 and data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Kales A: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **3.** Zimmerman AM: *Curr Ther Res 13*:18-22, Jan 1971. **4.** Kales A *et al: JAMA 241*:1692-1695, Apr 20, 1979. **5.** Kales A, Scharf MB, Kales JD: *Science 201*:1039-1041, Sep 15, 1978. **6.** Kales A *et al: Clin Pharmacol Ther 19*:576-583, May 1976. **7.** Kales A, Kales JD: *Pharmacol Physicians 4*:1-6, Sep 1970. **8.** Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc 27*:541-546, Dec 1979. **9.** Dement WC *et al: Behav Med 5*:25-31, Oct 1978. **10.** Vogel GW: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **11.** Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington, DC, May 3-7, 1971. **12.** Pollak CP, McGregor PA, Weitzman ED: The effects of flurazepam on daytime sleep after acute sleep-wake cycle reversal. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, June 30-July 4, 1975. **13.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

Dalmane® Ⓒ
(flurazepam HCl/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

ROCHE®
Roche Products Inc.
Manati, Puerto Rico 00701

Contemporary Hypnotic Therapy

Dalmane® [flurazepam HCl/Roche] Stands Apart

'83

Only one sleep medication objectively fulfills all these important criteria:



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OF MEDICINE

- Rapid onset of sleep.[1]
- More total sleep time on the first 3 nights of therapy.[1]
- More total sleep time on nights 12 to 14 of therapy.[1]
- Continued efficacy for at least 28 nights.[2]
- Seldom produces morning hangover.[3]
- Avoids rebound insomnia when therapy is discontinued.[1,4,5]



15-mg/30-mg capsules

Dalmane® (IV)
flurazepam HCl/Roche

ROCHE®
Roche Products Inc.
Manati, Puerto Rico 00701

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Please see summary of product information on reverse side.

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April 1983 • Vol. 76 • No. 4

The JOURNAL of the INDIANA STATE MEDICAL ASSOCIATION

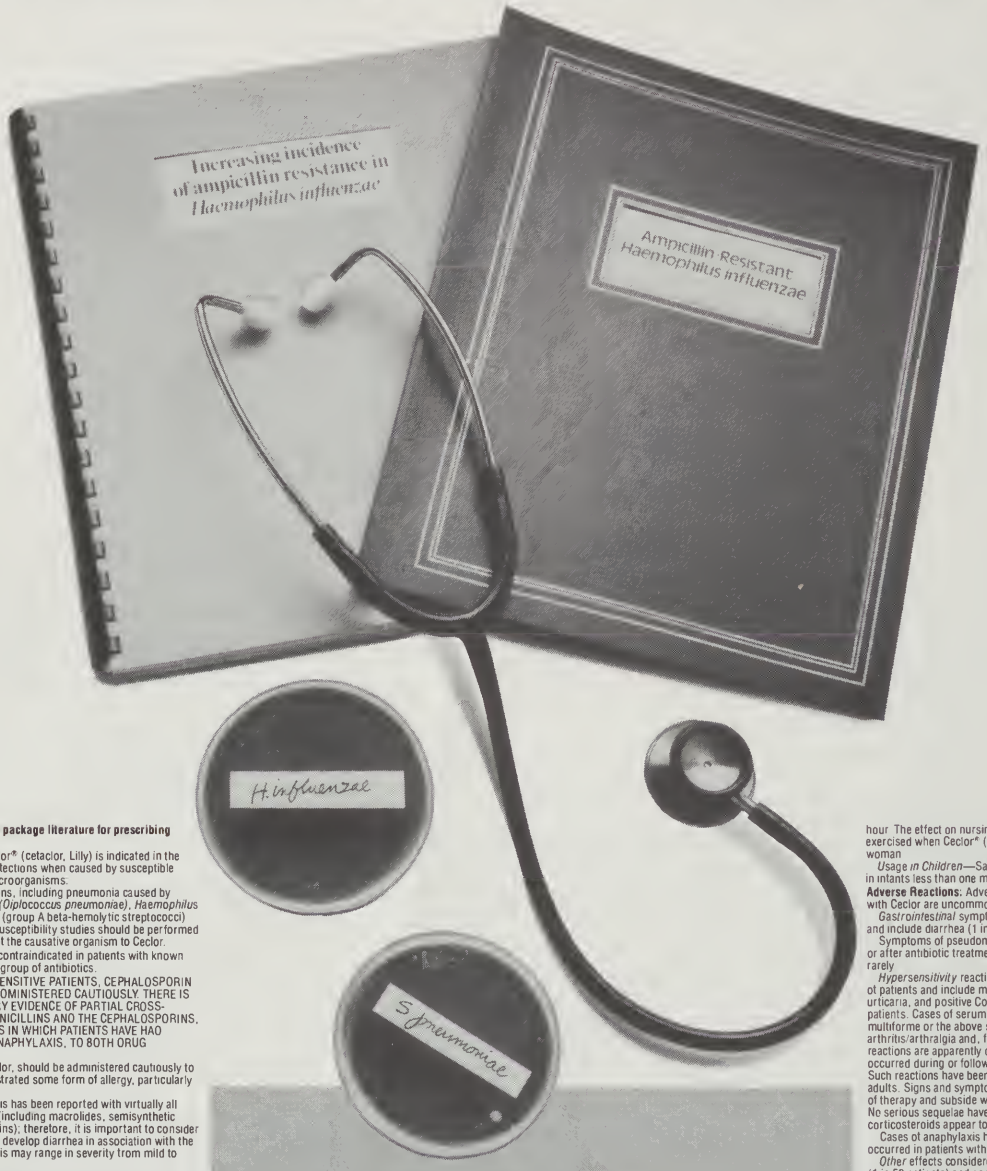


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S

The ISMA Airplane: Bringing Officers and Members Together—
Story Begins on Page 244

An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cetaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions*—If an allergic reaction to Ceclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers—Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor® (cefaclor, Lilly) is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations of SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.®
Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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1. Antimicrob. Agents Chemother., *8*:91, 1975.
2. Antimicrob. Agents Chemother., *11*:470, 1977.
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5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II:880. Washington, D.C., American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., *13*:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

300035

MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

HISTORICAL EVENTS are prone to recur at intervals, thus a knowledge of history may be useful in planning for the future.

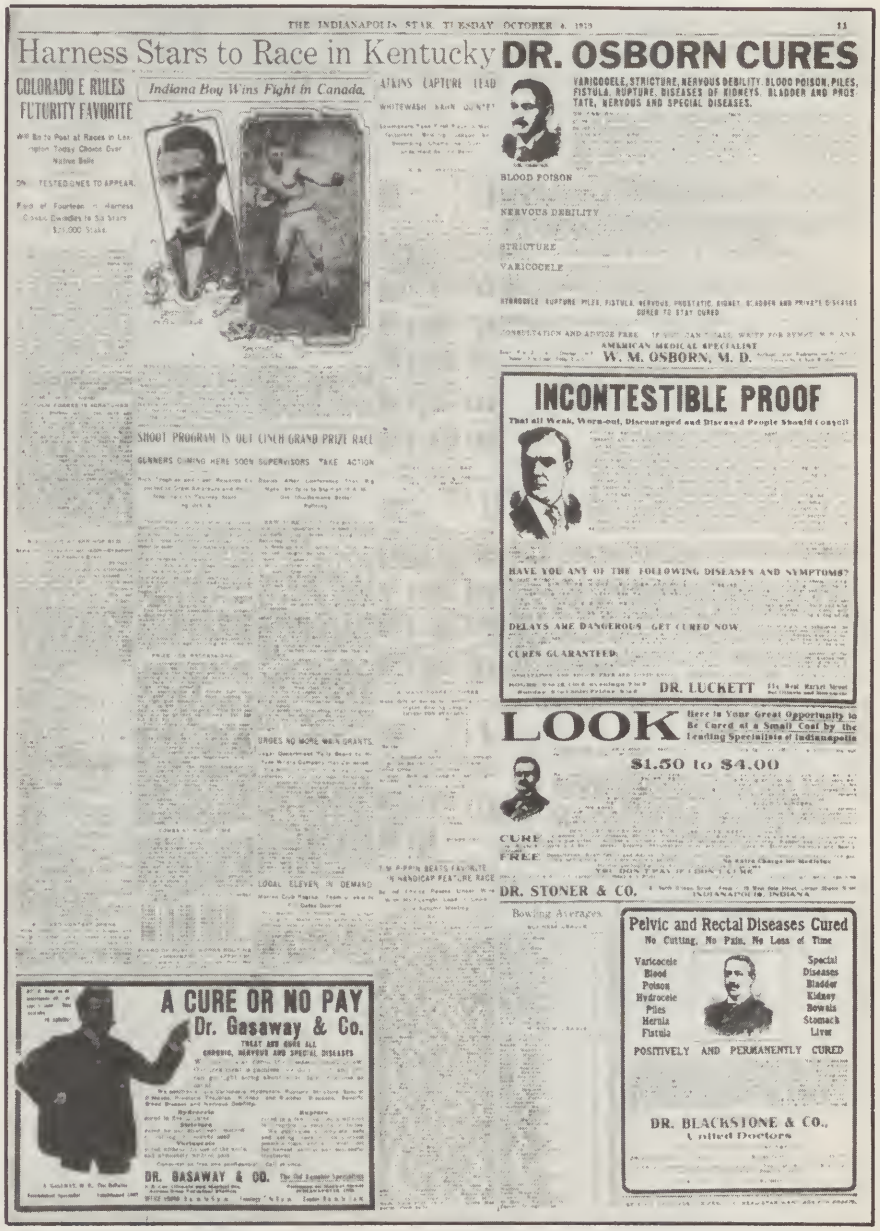
The opinion is now being expressed that medical schools are graduating too many physicians, and that by the turn of the 21st century M.D.s will be a glut on the market.

Such a condition actually existed at the turn of the present century. However, with the development of a single state-operated medical school, and the closing of all the proprietary schools, the number of graduates dropped abruptly from several hundred per year to about a dozen. With the passing of time the surplus disappeared, and ultimately a doctor shortage developed. The number of graduates has gradually increased so that record numbers now add to the ranks of practicing physicians each year. Most of the plethora of physicians at the turn of this century were inadequately trained, in contrast to the present situation.

Physician Ads of Yesteryear Lacked Scruples

To cope with this, present-day physicians are being advised by those in public relations that increasing competition in the future will require the physician to devote attention to his public image (i.e., he will need to advertise); and the recent ruling of the courts against organized medicine's ethical barrier to advertising indicates the handwriting on the wall to be that by the 21st century physician advertisements in newspapers and nonprofessional magazines will be commonplace.

Since the future is to be found in the past, we can look to the newspapers of the turn of the century to find examples of M.D. advertisements. Then, as now, a significant number of M.D.s were not a part of organized medicine, and some of these physicians had no scruples in regard to advertising. Some placed small ads in the classified section. Others used large ads to catch the public eye.


THE INDIANAPOLIS STAR, TUESDAY, OCTOBER 4, 1910 11

Harness Stars to Race in Kentucky

COLORADO E RULES FUTURITY FAVORITE

Indiana Boy Wins Fight in Canada.

ATKINS CAPTURE LEAD

SHOUT PROGRAM IS OUT CINCH GRAND PRIZE RACE

GLEANERS COMING HERE SOON SUPERVISORS TAKE ACTION

URGES NO MORE WAR GRANTS

LOCAL ELEVEN IN DEMAND

DR. OSBORN CURES

VARICOCELE, STRICTURE, NERVOUS DEBILITY, BLOOD POISON, PILES, FISTULA, RUPTURE, DISEASES OF KIDNEYS, BLADDER AND PROSTATE, NERVOUS AND SPECIAL DISEASES.

BLOOD POISON

NERVOUS DEBILITY

STRICTURE

VARICOCELE

AMERICAN MEDICAL SPECIALIST
W. M. OSBORN, M. D.

INCONTESTIBLE PROOF

That all Weak, Worn-out, Discouraged and Diseased People Should Consult

HAVE YOU ANY OF THE FOLLOWING DISEASES AND SYMPTOMS?

DELAYS ARE DANGEROUS GET CURED NOW

CURES GUARANTEED

DR. LUCKETT

LOOK Here is Your Great Opportunity to Be Cured at a Small Cost by the Leading Specialists of Indianapolis

$1.50 to $4.00

CURE FREE

DR. STONER & CO.

Bowling Averages

A CURE OR NO PAY
Dr. Gasaway & Co.

DR. GASAWAY & CO.

Pelvic and Rectal Diseases Cured
No Cutting, No Pain, No Loss of Time

Varicocele
Blood Poison
Hydrocele
Piles
Hernia
Fistula

Special Diseases
Bladder
Kidney
Bowels
Stomach
Liver

POSITIVELY AND PERMANENTLY CURED

DR. BLACKSTONE & CO.,
United Doctors

The examples shown here are found on page 11 of *The Indianapolis Star* for Tuesday, Oct. 4, 1910. This page was selected because it contains five large ads. A perusal of these ads will demonstrate the technique.

A. **Use Attention-Getting Headlines.**

- DR. OSBORNE CURES
- ". . . DISEASED PEOPLE SHOULD CONSULT (DR. LOCKETT) . . ."
- "LOOK, HERE IS YOUR GREAT OPPORTUNITY TO BE CURED."
- "NO CUTTING, NO PAIN, NO

CONTINUED ON PAGE 246

WHAT'S NEW?

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Dr. Roscoe E. Miller, Indianapolis, is co-author (with Jovitas Skucas of Rochester, New York) for a new publication, *The Radiological Examination of the Colon.* The book is designed to impart an understanding of the radiological colon examination process, its performance, its diagnostic ability, and also its limitations. It is primarily addressed to the team performing the examination. Published by Martinus Nijhoff of the Netherlands. 480 pages, 302 illustrations, clothbound, $128.

Norwich Eaton Pharmaceuticals announces a new educational videotape on "Abdominal Trauma." The tape is suitable for general surgeons and allied surgical professionals. To arrange for free showings, communicate with the Norwich Eaton representative or write to Norwich Eaton at Norwich, N.Y. 13815.

The Bromion Company has a watertight cast and dressing cover which allows patients to shower comfortably without water seepage into the cast or dressing. Patented sealing closure flange provides a reliable, smooth-fitting seal. Velcro fasteners provide rapid and easy placement and removal.

Abbott Laboratories announces the introduction of ABBOTT PAP-EIA, a new diagnostic product that improves the ability of physicians to monitor the treatment of patients with prostatic cancer. It is the first product marketed by Abbott to use monoclonal antibodies. It measures the serum level of prostatic acid phosphatase (PAP).

Life Power Products has a new kitchen appliance that measures the sodium content of food. It is called Lipp's Original Salt Meter and is a highly reliable and sensitive conductivity meter. It will also measure the contamination in water. It plugs into 115-volt AC circuits and records high, medium and low by color code or reads in milligrams or parts per million.

The 3M Company has a new, thin, lightweight, fiberglass casting tape that is very comformable, flexible and offers a more intimate fit than can be obtained with other synthetic materials. It is knitted from thin fiberglass fiber impregnated with a polyurethane resin that hardens upon exposure to water. Casts are lightweight and more radiolucent than other fiberglass casts.

Amko reports a new set of Pratt Uterine Dilators with smooth, rounded double ends. The set consists of eight sizes ranging from 13/15 to 41/43, 10½" long. Solid stainless steel for lasting use.



"EXACTLY WHAT IS THIS COMPLAINT ABOUT YOUR MEDICAL PLAN?"

Abbott announces AUSAB EIA, the first commercially available enzyme immunoassay (EIA) for the detection of antibody to hepatitis B surface antigen (anti-HBs). It is recommended for testing the recovery from and prognosis for patients infected with hepatitis B virus (HBV), as well as for screening potential vaccine recipients.

Hewlett-Packard has a new family of portable defibrillator/monitors to provide ease of use and reliability for all hospital applications. Each of the models is designed for use in the critical-care unit, on the general floor, or in the operating room or emergency room. Inquiries may be directed to H-P, at 175 Wyman St., Waltham, Mass. 02254.

Mead Johnson announces introduction of Improved Formulation Enfamil®, with a formula designed to be as nutritionally close to human milk as possible. One of the advances is the use of whey as a major protein source, along with casein. Human milk is 60% whey and 40% casein, hence the 60/40 proportion for the new formula.

Parke-Davis is introducing a program called Elder-Care, which encourages older patients to ask health care practitioners for help in managing their medications. Pharmacists will have a stock of patient information booklets titled "As We Grow Older." The booklet also illustrates the Elder-Care symbol, which when displayed by a pharmacist will indicate to his elder patients that he is prepared to discuss medications with his clientele.

Abbott Laboratories announce FDA approval for marketing Amidate (etomidate injection), to be used for induction of anesthesia. It also may be used to supplement subpotent agents such as nitrous oxide-oxygen. Because of its minimal effects on the heart and circulation, Amidate offers advantages in inducing surgical anesthesia in patients at risk because of hypertension, degenerative cardiovascular disease, peripheral vascular disorders, or chronic lung disorders.

The JOURNAL of the INDIANA STATE MEDICAL ASSOCIATION

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WINNER
Sandoz Medical Journalism Award—1976, 1979

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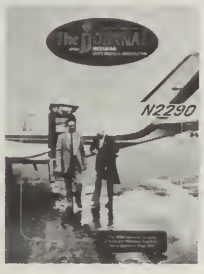
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ABOUT THE COVER

Dr. Herbert C. Khalouf (left) and Dr. Paul Siebenmorgen, ISMA officers, step off the ISMA airplane at Eagle Creek Airport on the west side of Indianapolis, where the plane is based. For the full story on the ISMA airplane, turn to page 244.

PHOTO BY JOYCE WOLF

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EDITORIALS

Orphan Drug Act

President Reagan has signed the Orphan Drug Act into law.

The main purpose of the new law is to encourage research into and the manufacture and sale of drugs that are effective against rare diseases but for which sales are expected to be insufficient to produce a profit or to reimburse the research effort.

The new law instructs the FDA to provide an orphan drug sponsor, at his request, with written recommendations that describe the number and type of animal and human clinical drug tests needed for approval.

At the sponsor's request, the FDA must designate a drug as an orphan drug if the Secretary finds that it is for a rare disease or condition.

A seven-year period of exclusive marketing, beginning with the date the drug is approved by FDA, is provided for nonpatentable orphan drugs.

An Orphan Products Board is established to promote development of orphan drugs and devices, and evaluate the implementation of the Act and the activities of the involved agencies.

A tax credit equal to 50% of the costs in any taxable year of conducting human clinical tests on a designated orphan drug is established for any pharmaceutical company developing an orphan drug. The remaining 50% of testing costs can be deducted. The total tax reduction is 73%.

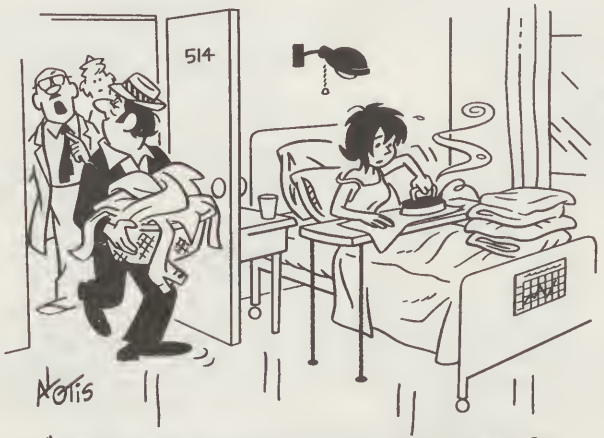
The HHS Secretary is authorized to make grants and enter into contracts for performance of human clinical tests.

During consideration, amendments that were added to the basic bill deal with sickle cell anemia, home health care, patent life restoration for aspartame, regulations for primary health care block grants, study of a Massachusetts reservoir's water quality, and more. All these presumably are to be charged to the cost of legislative maneuvering necessary for the passage of the main and important provisions.

Further research in this field may come up with a myriad of new pharmaceuticals, each one of which may prove to be a bonanza for solitary patients who will enjoy a curative or alleviating treatment for the first time ever.

Lindane and Head Lice

Reports that lindane has become ineffective in the treatment of head lice are labeled as untrue by an article in the *International Journal of Dermatology.* Lawrence Charles Parish, M.D., editor of the journal, states there is no scientific validity in rumors that head lice have developed resistance to lindane. Such experiments have used lower-than-normal lindane concentrations, have combined lindane with compounds that may inhibit its effectiveness, or precautions have not been taken to avoid reinfestation.



Caffeine 'Scare Reports'

Caffeine is just one of a large array of food ingredients and foods that have been rumored to cause cancer or to be harmful to health. One by one the rumors have indicted some part of the daily diet or some portion of the environment and have caused, no doubt, considerable worry and useless distress to many citizens who are rightfully dedicated to continuance of their good health.

In this succession of "scare reports" the usual sequence is "bad news"—"good news."

The bad news in the case of caffeine was that it, as a part of the normal diet and in moderation, does cause heart disease, peptic ulcers or hypertension.

The good news is now supplied by a report from the American Council on Science and Health titled "The Health Effects of Caffeine." This recent report is an update of a 1981 study sponsored by the same council.

The upshot of the whole rumor-mongering and the two reports by the council's scientific investigators is that the rumors are wrong. Stop worrying.

Most substances in nature that are beneficial or gratifying in moderation are harmful when taken in excess. Such is the story with caffeine. Too much can cause insomnia, headaches, palpitation, anxiety, stomach upset and depression. Forty cups of coffee daily is too much. Everyone should limit intake of caffeine to a sensible amount.

Also, there are a few persons who are sensitive to caffeine. This is normal. Everyone is sensitive to something. Sensitivity to caffeine is easy to cure—avoidance is the watchword.

So, the rumor that caffeine causes cancer of the pancreas has been disproved by scientific research. The rumor that caffeine may cause birth defects is laid to rest—R.I.P.! The "cup that cheers" may remain just that. Moderation is the only requisite to a happy life with caffeine.

Copies of the new edition of "The Health Effects of Caffeine" may be obtained from ACSH, 47 Maple St., Summit, N.J. 07901—(201) 277-0024.

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Medical Education and the ISMA

Guest Editorial

Dr. Franklin A. Bryan of Fort Wayne, chairman of the ISMA Commission on Medical Education, and Mrs. Beckett Shady-King, staff representative to the commission, prepared the following explanation of the commission's major function, i.e., the accreditation and reaccreditation of institutions and organizations for the presentation of CME programs in Indiana. A list of those accreditations appears on the opposite page.

THE CONSTITUTION of the Indiana State Medical Association declares that the Association should "extend medical knowledge and advance medical science" and "elevate the standard of medical education." The Bylaws of the ISMA describe the method by which these obligations are to be met.

The Bylaws provide for an annual meeting, which includes business and legislative sessions of the House of Delegates as well as scientific sessions for educational purposes. They also provide for a special membership category, Distinguished Member, to encourage physicians to obtain Continuing Medical Education (CME) credit hours on a voluntary basis. In addition, the Bylaws provide for the Commission on Medical Education, whose purpose is to maintain liaison with and be of assistance to medical schools and the licensing board; the commission also endeavors to assist in improving undergraduate, graduate and continuing medical education, and public school health education.

Historically, the Commission on Medical Education always has included I.U. School of Medicine faculty and/or administrators (Deans) to help assure liaison and close cooperation with the school. This was most helpful in developing and implementing the I.U. School of Medicine Statewide Medical Education System.

Through the commission's efforts, with the help of its subcommission on accreditation, a CME accreditation system was developed for institutions and organizations in Indiana. This led to AMA accreditation in 1973, making Indiana the seventh state so approved by the AMA. The ISMA has maintained this designation as an accrediting body since that time, although the national accrediting body has changed several times.

A few years ago, the commission, working closely with the Medical Licensing Board and the ISMA attorney, prepared a Medical Practice Act which became law in 1975; although amended, this law still stands.

The major continuing function of the commission is accrediting and reaccrediting institutions and organizations for the presentation of CME programs in Indiana. This procedure not only assures the ISMA membership of the availability of high quality CME programs, either at home or nearby, but it encourages physician participation as well. The commission also is available for consultation in program development.

The accreditation-reaccreditation process of the ISMA is carried out to make sure that institutions and organizations in Indiana meet the standards required to present programs acceptable for Category 1 credit toward the AMA's Physician Recognition Award. If these standards are met, the ISMA can grant accreditation or reaccreditation for up to six years. It is then the responsibility of the Director of Medical Education (DME) of the institution or organization to determine which CME offerings or programs qualify for the Category 1 designation. This is extremely important since it is not likely that all programs being offered, even though of excellent educational value, meet the criteria.

The accreditation-reaccreditation process is voluntary and initiated by request to the ISMA. A pre-survey questionnaire is completed by the institution or organization, after which a site visit is scheduled. The site visit is intended to verify the information received, obtain additional information and to observe the program. All information obtained is reviewed by the subcommission on accreditation, composed of representatives of ISMA specialty sections and other specialty societies. After its review, the subcommission recommends accreditation action to the commission, whose final action is recognized by the national accrediting body, the Accreditation Council for CME (ACCME).

CME credits obtained from these approved programs are acceptable to many state and specialty societies; they also meet the requirements of state licensing boards.

Fortunately, Indiana has no mandatory CME requirement for ISMA membership or for licensure. The voluntary work of the Commission on Medical Education, its subcommission and the ISMA staff meets the need for proper accreditation. And the continued cooperation of the DME's of accredited institutions or organizations in properly designating Category 1 programs assures that CME offerings in Indiana are of the highest quality.

Indiana CME Accreditations

The Continuing Medical Education programs of the following institutions and/or organizations are accredited by the Indiana State Medical Association. This accreditation designates the CME activities as meeting the criteria for Category 1 credit toward the AMA's Physician Recognition Award.

Specialty Societies: Accredited

Aesculapian Society of Terre Haute
Indiana Academy of Ophthalmology
Indiana Academy of Otolaryngology
Indiana Association of Pathologists
Indiana Bone and Joint Club
Indiana Orthopaedic Society
Indiana Philippine Medical Association
Indiana Psychiatric Association
Indiana Society of Anesthesiologists
Indiana State Board of Health
Indiana State Urological Society
Indianapolis Society of Anesthesiologists
Third District Medical Society
Jay County Medical Society
Marion County Society of Otorhinolaryngology
Indiana Roentgen Society, Inc.
Central Indiana Society of Occupational Medicine

Hospitals: Accredited

Ball Memorial Hospital, Muncie
DME: John Cullison, M.D.

Bartholomew County Hospital, Columbus
DME: Michael Free, M.D.

Bedford Medical Center, Bedford
DME: Alan Smith, M.D.

Bloomington Hospital, Bloomington
DME: Lawrence D. Rink, M.D.

Caylor-Nickel Hospital, Bluffton
DME: Donald A. Dian, M.D.

Clark County Memorial Hospital, Jeffersonville
DME: Olegario J. Ignacio, M.D.

Community Hospital, Anderson
DME: Richard Kelly Chambers, M.D.

Community Hospital, Indianapolis
DME: Glenn J. Bingle, M.D.

Deaconess Hospital, Evansville
DME: Glenn D. Baird, M.D.

Dearborn County Hospital, Lawrenceburg
DME: Elton Heaton, M.D.

Elkhart General Hospital, Elkhart
DME: John B. Guttman, M.D.

Fort Wayne Medical Education Foundation, Fort Wayne
DME: Franklin Bryan, M.D.

Good Samaritan Hospital, Vincennes
DME: Alan D. Stewart, M.D.

Howard Community Hospital, Kokomo
DME: J. L. Frazier, M.D.

Huntington Memorial Hospital, Huntington
DME: S. E. Cope, M.D.

Jay County Hospital, Portland
DME: Eugene M. Gillum, M.D.

Lafayette Medial Education Foundation, Lafayette
DME: Lindley Wagner, M.D.

LaPorte Hospital, La Porte
DME: Barbara Backer, M.D.

Memorial Hospital of Floyd County, New Albany
DME: Aftab Chaudhry, M.D.

Memorial Hospital, South Bend
DME: Donald Olson, M.D.

Mercy Hospital, Elwood
DME: Rosser Rudolph, M.D.

Methodist Hospital of Gary, Gary
DME: Faye Stathis

Methodist Hospital of Indiana, Indianapolis
DME: Stephen Jay, M.D.

Reid Memorial Hospital, Richmond
DME: Paul S. Rhoads, M.D.

St. Catherine's Hospital, East Chicago
DME: Fred Adler, M.D.

St. John's Hickey Memorial Hospital, Anderson
DME: Frank Beeler, M.D.

St. Joseph Memorial Hospital, Kokomo
DME: Shokri Radpour, M.D.

St. Joseph's Hospital, Huntingburg
DME: Charles Hiam, M.D.

St. Joseph's Hospital, South Bend
DME: Gary Mitchell, M.D.

St. Margaret Hospital, Hammond
DME: Kenneth Fetrow, M.D.

St. Mary's Hospital, Evansville
DME: W. Thomas Spain, M.D.

St. Mary Medical Center, Gary
DME: J. E. Pruitt, M.D.

St. Vincent Hospital, Indianapolis
DME: Robert D. Robinson, M.D.

South Bend Medical Foundation, South Bend
DME: Lawrence K. Hussey, M.D.

Terre Haute Academy of Medicine, Terre Haute
DME: John A. Hetherington, M.D.

Terre Haute Regional Hospital, Terre Haute
DME: William Strecker, M.D.

Tipton County Memorial Hospital, Tipton
DME: Clarence Cobb, M.D.

Union Hospital, Terre Haute
DME: Renate Justin, M.D.

Welborn Memorial Baptist Hospital, Evansville
DME: Peter S. Mulvey

Winona Hospital, Indianapolis
DME: Samuel L. Odle

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See next page for brief summary of prescribing information.

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Over a five-year period, ibuprofen was administered to 64 patients with known peptic ulceration and 42 with known gastric intolerance to other antiarthritis drugs.

Twenty-six patients remained in treatment, 23 left treatment following remission, and 35 dropped out for reasons unrelated to side effects. In this specially selected group of GI-intolerant patients, only 13 (12.3%) discontinued ibuprofen because of GI intolerance.

"Any drug used in the control of the symptoms of the chronic arthritis must be tolerated for long periods without undue gastric discomfort...From this study it appears that ibuprofen is eminently suitable."[8]

Peptic ulceration and GI bleeding, sometimes severe, have been reported. Rufen® should be given under close supervision to patients with a history of upper GI tract disease.

References: 1. Royer GL, Jr, Moxley TE, Hearron MS, et al: *J Int Med Res* 3:158-171, 1975. 2. Royer, GL, Jr, Moxley TE, Hearron MS, et al: *Curr Therap Res* 17:234-248, 1975. 3. Brackertz B, Busson M: *Brit J Clin Pract* 32:77-80, 1978. 4. Tausch J, Fasching U: *Brit J Clin Pract: A symposium supplement, IXTH European Congress of Rheumatology*, Wiesbaden, Germany, Sept 2-8, 1979, pp 53-61. 5. Lanza FL, Royer GL, Jr, Nelson RS et al: *Dig Dis & Sci* 24:823-828, 1979. 6. Pavelka K, Susta A, Vojtisek A et al: *Rheumatol and Rehab* 12:68-73, 1973. 7. Tretenhahn W: *Brit J Clin Pract: A symposium supplement, IXTH European Congress of Rheumatology*, Wiesbaden, Germany, Sept 2-8, 1979, pp 45-52. 8. Cardoe N: Curr Med Res & Opinion 3:518-520, 1975.

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RUFEN® (ibuprofen) Tablets

INDICATIONS AND USAGE: Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in the long-term management of these diseases. Safety and effectiveness have not been established for Functional Class IV rheumatoid arthritis.

Relief of mild to moderate pain. Treatment of primary dysmenorrhea.

CONTRAINDICATIONS: Patients hypersensitive to ibuprofen, or with the syndrome of nasal polyps, angio-edema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory drugs (see WARNINGS).

WARNINGS: Anaphylactoid reactions have occurred in patients hypersensitive to aspirin (see CONTRAINDICATIONS). Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration, perforation, or gastrointestinal bleeding can end fatally, however, an association has not been established. Rufen should be given under close supervision to patients with a history of upper gastrointestinal tract disease, and only after consulting the ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be attempted. If Rufen must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If developed, discontinue Rufen and administer an ophthalmologic examination.

Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy, this therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: *Coumarin-type anticoagulants.* The physician should be cautious when administering Rufen to patients on anticoagulants.

Aspirin. Concomitant use may decrease Rufen blood levels.

PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS: Incidence greater than 1%. Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4 to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence). Central Nervous System: dizziness*, headache, nervousness. Dermatologic: rash* (including maculopapular type), pruritus. Special Senses: tinnitus. Metabolic: decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS). *Incidence 3% to 9%.

Incidence less than 1 in 100. Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. Central Nervous System: depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma. Dermatologic: vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome and alopecia. *Special Senses:* hearing loss, amblyopia (blurred and/or diminished vision, scotomata and/or changes in color vision) [see PRECAUTIONS]. Hematologic: neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura eosinophilia, decreases in hemoglobin and hematocrit. Cardiovascular: congestive heart failure in patients with marginal cardiac function, elevated blood pressure. Allergic: syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasms (see CONTRAINDICATIONS). Renal: acute renal failure in patients with preexisting significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria. Miscellaneous: dry eyes and mouth, gingival ulcers, rhinitis.

Causal relationship unknown. Gastrointestinal: pancreatitis. Central Nervous System: paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri. Dermatologic: toxic epidermal necrolysis, photoallergic skin reactions. Special Senses: conjunctivitis, diplopia, optic neuritis. Hematologic: bleeding episodes. Allergic: serum sickness, lupus erythematosus syndrome, Henoch-Schonlein vasculitis. Endocrine: gynecomastia, hypoglycemia. Cardiovascular: arrhythmias (sinus tachycardia, bradycardia, and palpitations). Renal: renal papillary necrosis.

OVERDOSAGE: Acute overdosage, the stomach should be emptied. Rufen is acidic and excreted in the urine, alkaline diuresis may benefit.

DOSAGE AND ADMINISTRATION: Rheumatoid arthritis and osteoarthritis, including flareups of chronic disease: Suggested dosage 400 mg t.i.d. or q.i.d.

Dysmenorrhea: 400 mg every 4 hours as necessary.

Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for the relief of pain. *Do not exceed 2,400 mg per day.*

CAUTION: Federal law prohibits dispensing without prescription.

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Sharing ownership in American Physicians Life are Physicians Insurance Company of Ohio, representing Ohio physicians; the Indiana State Medical Association, representing Indiana physicians; Physicians Insurance Company of Michigan, representing Michigan physicians; and Kentucky Medical Insurance Company, representing Kentucky physicians. American Physicians Life is establishing operations throughout the midwest, in cooperation with other medical associations and physician-owned entities.

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Highways, Airways and Workplaces: All Safer Under Reagan

Commentary



RICHARD L. LESHER
President
U.S. Chamber of Commerce

RONALD REAGAN, what have you done to the safety of our highways, airways and workplaces? After all, you and your appointees have cut regulatory budgets, decreased the number of safety inspections, de-emphasized enforcement of the national speed limit, and fired virtually the entire air traffic control work force. Have you no COMPASSION for the workingman, the air traveler or the wife and kids driving down the highway to grandmother's house?

Sound familiar? Over the past two years we have heard a drumbeat of emotional charges from special interest groups angered by cutbacks in their particular federal regulatory domains. We have been told that the reduction of a few billets at certain agencies would cause untold human suffering and perhaps even an increase in accidental deaths.

Given the frequency with which such hysteria is treated in the press, the following evidence may surprise you:

Highways: According to the Washington *Times,* if present trends continue, 43,500 people will die on the nation's highways this year. This is a terrible tragedy, but not as bad as 1980, when 51,100 people died—in spite of the efforts of President Carter's National Highway Traffic Safety Administration, directed by Nader protegee Joan Claybrook. During the first two years of our new regulatory approach, 9,500 fewer Americans have been killed on the highways than during the last two years of the Carter administration.

Airways: When President Reagan fired striking air traffic controllers for violating their legal oath not to strike, he was accused of union-busting and political grandstanding at the expense of safe airways. But one important measurement used by the Federal Aviation Administration indicates that flying is safer now than it was before the strike. During the 12 months leading up to the PATCO walkout, there were 449 confirmed "near-misses," incidents in which aircraft were allowed to stray too close to each other. Yet, in the first year following the walkout, just 258 such incidents were reported—a 43% decrease.

Workplaces: When Labor Secretary Ray Donovan and Occupational Safety and Health Administrator Thorne Auchter signaled their intention to adopt a policy of cooperation and partnership rather than confrontation with employers over worker safety, there were howls of protest. Yet figures released recently by the Bureau of Labor Statistics reveal that, whereas worker safety statistically dropped during the Carter years of regulatory extremism, workers under this new policy are now safer than at any time since the early 1970s. In 1980 there were 8.7 injuries or illnesses per 100 full-time workers. In 1981, that figure declined to 8.3, meaning that there were 200,000 fewer on-the-job injuries than there were during President Carter's last year.

I am not suggesting that these initial efforts at deregulation are the sole reason for improvements in safety at work, on the road, or in the air. Yet these performances suggest that a results-oriented regulatory approach that emphasizes constructive cooperation with affected industries can contribute to commendable improvements in safety. Above all, this evidence proves categorically that the hysterical attacks by special interests accusing President Reagan of toying with our lives because he has reduced the number of regulators waxing chairs in Washington are just plain phony. Those fear-mongers owe the rest of us an apology—but don't hold your breath!

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Shape Up for Life Campaign

An AMA Auxiliary Editorial

THE TIME TO CHANGE bad health habits is now. Starting a diet "tomorrow," deciding to take an exercise class "next winter," or taking time to relax "when this stressful period is over" just is not good enough.

All across America, there is a growing awareness that practicing good nutrition, being physically fit and learning to manage stress are essential to quality living.

To promote positive health changes, the AMA Auxiliary is encouraging use of their Shape Up for Life ads (below) in medical society journals. The AMA Auxiliary's Shape Up for Life program is designed to aid public awareness of those habits that contribute to good health and those that do not.

Begun in 1979, the program encourages practicing the self-discipline and self-control necessary to get ourselves in physical and mental shape. Whether it involves jogging, planning balanced meals or taking up a hobby, the AMA Auxiliary's Shape Up for Life campaign offers valuable information and advice to start on the road to good health.

Shape Up for Life materials available include buttons, posters, and transfers featuring the Shape Up logo. Brochures cover several topics: Food and Fitness, Managing Stress, Drug Use and Abuse, and Making Good Health a Habit. Practical and easy-to-use information is featured, such as a Daily Food Guide, which charts kinds and quantities of food that best provide nutritional needs while not adding pounds and inches.

It's never too late to start a shape-up program. Whether 16 or 60, people need to be aware that healthful living is their responsibility. Losing 10 extra pounds, joining an exercise group or mixing stressful daily routines with calming activities can't come too soon. The best day to begin to Shape Up for Life is today.

For further information or to receive Shape Up for Life materials, contact the AMA Auxiliary Headquarters, 535 N. Dearborn Street, Chicago 60610.

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You can bet your life that total fitness
—physical and mental —
pays off.
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make good health a habit and Shape Up for Life,
write for free pamphlets from
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For more information call or write:

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JOHN A. KNOTE, M.D.
President
Indiana State Medical Association

DURING THE PAST five years, the Indiana State Medical Association has been renting private airplanes to facilitate travel arrangements on select trips. Utilizing this method of travel, any destination within Indiana can be reached in minutes rather than hours. Frequently, intermediate stops are made enroute to pick up additional meeting participants. Airplane travel allows both staff and officers to spend a full day in the office, attend an out-of-town evening meeting, and then return home that same evening.

Each year ISMA representatives attend 13 district meetings, two AMA meetings, an AMA leadership conference, an AMA legislative conference, numerous county medical society meetings, business-medicine coalition meetings, etc. Under separate corporate names, representatives also attend meetings of the Indiana Physicians Life Insurance Company and the Physicians Insurance Company of Indiana. Even though the insurance companies pay for the trips, cost efficiency is still of paramount concern.

In deciding to use private airplanes, it was noted that by avoiding overnight hotel and meal expenses, select trips often can be made in a private plane for fewer dollars than driving. This is particularly true when several people are attending the same meeting. Similarly, three or four people can travel together in a private airplane for significantly fewer dollars than on comparable commercial airlines. For example, while participating in a recent AMA legislative briefing and lobbying effort in Washington D.C., six ISMA officers projected an expense for commercial airline tickets of $1,700, plus hotel expenses. Instead, the ISMA aircraft was used for a total cost of $735 and everyone returned home the same day.

ISMA officers and staff occasionally find that meeting schedules place impossible demands on them since most of the meetings attended are in the evening, but use of the airplane allows our pilot and members involved to conduct a full day's work. This past summer, several ISMA officers attended a meeting in West Virginia that ended at noon. Later that same afternoon they were all scheduled to attend a district meeting back in Indiana. By flying, the schedules were met with time to spare and all the



Dr. Paul Siebenmorgen, chairman of the ISMA Board of Trustees, talks with pilot Mike Huntley before take-off.

PHOTOS BY JOYCE WOLF

officers were returned to their home communities later that same evening. That day's meeting schedule would have been impossible using automobile or commercial airlines as a mode of transportation.

Besides traveling on Association business, we frequently find that other closely related medical organizations also have travel needs. The physician boards of our two subsidiary insurance companies employ the ISMA airplane when appropriate in addition to an affiliated physician-owned company in Michigan. Similarly, a major local corporation has also used the airplane. Therefore, it appeared that enough travel was being done collectively to explore the concept of purchasing a company airplane.

After several years of renting airplanes, the Association did a comparative financial analysis and discovered that ownership appeared to be a more financially attractive alternative than renting. In August 1982, the ISMA Board of Trustees thus authorized the purchase of a 1976 Piper Navajo Chieftain for $138,600 and authorized staff to enter into an agreement with a local air charter service to rent out the plane for executive charter purposes. Profit from the charter flights is used to help offset Association expenses. The plane ISMA purchased has twin, turbo-charged, engines and a range of approximately 1,200 miles. For purposes of fuel economy, we normally use a cruise speed of 215 MPH. The plane has eight seats, is air-conditioned, equipped with toilet and telephone, and is suitably equipped for flying into icing conditions and instrument flight conditions. Generally, the plane is very comfortable.



Dr. Siebenmorgen and Dr. Herbert C. Khalouf, chairman of the ISMA Executive Committee, catch up on their paperwork during flight aboard ISMA's aircraft.

As you can image, the ISMA Board took a hard look at expenses before authorizing the purchase. Based on industry experience, we anticipate that the airplane will maintain its present value for a number of years. Our only loss will be from the investment income which should be offset by overall savings to the travel budget. The Association's financial objective is to generate enough profit on the charter usage to totally underwrite all insurance expenses, thereby leaving the Association with only direct operating expenses. The airplane is flown by an existing ISMA staff member, Mike Huntley, who holds a commercial pilot's license with instrument

AT A GLANCE

The Pilot

Michael Huntley, Special Assistant to the ISMA Executive Director; holds commercial pilot's license with instrument and multi-engine ratings.

The Aircraft

- 1976 Piper Navajo Chieftain
- Twin-engine, 350 HP, turbo-charged
- Cruising speed: 215 MPH
- Range: 1,200 miles
- Load Capacity: Fuel, baggage and passengers—2,000 pounds
- Eight seats, air-conditioned cabin
- Approved for flight into known icing conditions and instrument flight conditions

Typical Travel Destinations and Times

Indianapolis to Bloomington	15 minutes
Indianapolis to Fort Wayne	35 minutes
Indianapolis to South Bend	45 minutes
Indianapolis to Evansville	50 minutes
Indianapolis to Chicago	60 minutes
Indianapolis to Washington, D.C.	2 hours, 45 minutes

and multi-engine ratings.

Obviously, a company airplane has a potential for misuse. The ISMA Board has, therefore, created a formal utilization policy and has instructed staff to present a detailed utilization report at each Board meeting. The aircraft is equipped with a meter that records all utilization, down to the tenth of an hour.

I believe both staff and officers have made an honest attempt to be judicious in their use of the airplane. Before using the plane, we compare the expenses with other modes of travel available. It usually is not efficient to use the company plane with only one passenger on board. Also, we find that, for flights in excess of 1,000 miles, airline fares become competitive with our actual operating expenses. Frankly, if it does not make sense to use the airplane on a particular trip, then we travel by another means. The Association's actual usage of the airplane therefore remains relatively modest. Please also note that if experience with the airplane does not justify it as a prudent business investment, then I am sure the Board of Trustees will recommend it be sold.

The Association is currently in the process of making discount usage of the plane available to any ISMA member. If an ISMA member wishes to make a personal trip in the corporation plane, he can charter it through the air charter company with whom we deal. ISMA will discount the per hour rental rate to the air charter company and that company will pass on the discount to ISMA members.

ISMA members may rent the airplane, complete with a professional pilot, for $1.30 per mile. Any member wishing to take advantage of this discount rate should contact: Mr. Brian Crull, Lakeside Aviation, 4103 Dandy Trail, Indianapolis 46254—(317) 293-7402. To receive the discount rate, be sure to identify yourself as a member of the Indiana State Medical Association.



Dr. Khalouf joins pilot Mike Huntley in the cockpit before flight. The plane, a 1976 Piper Navajo Chieftain, has twin turbo-charged engines and a range of about 1,200 miles. Its normal cruising speed is 215 MPH.

Physician Ads of Yesteryear Lacked Scruples

CONTINUED FROM PAGE 229

LOSS OF TIME. PELVIC AND RECTAL DISEASES CURED."

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B. **Give Your Message but be Modest.**

- ". . . My name is famous for the wonderful cures I have performed."
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C. **Finally, Tell How Inexpensive and/or How Effective You Really Are.**

- "Consultation and advice free."
- ". . . Refund full amount of fee in case of failure to cure."
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The five physicians advertising here were located within a few blocks of each other, and all were within walking distance of the Traction Terminal Building, so as to be able to profit from the interurban-traveling public from throughout the state.

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INDICATIONS AND USAGE: These preparations are indicated for the treatment of infections caused by susceptible strains of designated microorganisms as follows: Respiratory Tract Infections (e.g., tonsillitis, pharyngitis, and lobar pneumonia) due to *S. pneumoniae* (formerly *D. pneumoniae)* and group A beta-hemolytic streptococci [penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever; Velosef (Cephradine, Squibb) is generally effective in the eradication of streptococci from the nasopharynx; substantial data establishing the efficacy of Velosef in the subsequent prevention of rheumatic fever are not available at present]; Otitis Media due to group A beta-hemolytic streptococci, *H. influenzae,* staphylococci, and *S. pneumoniae;* Skin and Skin Structures Infections due to staphylococci and beta-hemolytic streptococci; Urinary Tract Infections, including prostatitis, due to *E. coli, P. mirabilis, Klebsiella* species, and enterococci *(S. faecalis).*

Note: Culture and susceptibility tests should be initiated prior to and during therapy.

CONTRAINDICATIONS: In patients with known hypersensitivity to the cephalosporin group of antibiotics.

WARNINGS; *Use cephalosporin derivatives with great caution in penicillin-sensitive patients since there is clinical and laboratory evidence of partial cross-allergenicity of the two groups of antibiotics; there are instances of reactions to both drug classes (including anaphylaxis after parenteral use).* In persons who have demonstrated some form of allergy, particularly to drugs, use antibiotics, including cephradine, cautiously and only when absolutely necessary.

Pseudomembranous colitis has been reported with the use of cephalosporins (and other broad spectrum antibiotics); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic use. Treatment with broad spectrum antibiotics alters normal flora of the colon and may permit overgrowth of clostridia. Studies indicate a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin *in vitro.* Mild cases of colitis may respond to drug discontinuance alone. Manage moderate to severe cases with fluid, electrolyte and protein supplementation as indicated. Oral vancomycin is the treatment of choice for antibiotic-associated pseudomembranous colitis

produced by *C. difficile* when the colitis is severe or is not relieved by drug discontinuance; consider other causes of colitis.

PRECAUTIONS: General: Follow patients carefully to detect any side effects or unusual manifestations of drug idiosyncrasy. If a hypersensitivity reaction occurs, discontinue the drug and treat the patient with the usual agents, e.g., pressor amines, antihistamines, or corticosteroids. Administer cephradine with caution in the presence of markedly impaired renal function. In patients with known or suspected renal impairment, make careful clinical observation and appropriate laboratory studies prior to and during therapy as cephradine accumulates in the serum and tissues. See package insert for information on treatment of patients with impaired renal function. Prescribe cephradine with caution in individuals with a history of gastrointestinal disease, particularly colitis. Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. Take appropriate measures should superinfection occur during therapy. Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

Information for Patients: Caution diabetic patients that false results may occur with urine glucose tests (see PRECAUTIONS, Drug/Laboratory Test Interactions). Advise the patient to comply with the full course of therapy even if he begins to feel better and to take a missed dose as soon as possible. Tell the patient he may take this medication with food or milk since G.I. upset may be a factor in compliance with the dosage regimen. The patient should report current use of any medicines and should be cautioned not to take other medications unless the physician knows and approves of their use (see PRECAUTIONS, Drug Interactions).

Laboratory Tests: In patients with known or suspected renal impairment, it is advisable to monitor renal function.

Drug Interactions: When administered concurrently, the following drugs may interact with cephalosporins:

Other antibacterial agents — Bacteriostats may interfere with the bactericidal action of cephalosporins in acute infection; other agents, e.g., aminoglycosides, colistin, polymyxins, vancomycin, may increase the possibility of nephrotoxicity.

Diuretics (potent "loop diuretics," e.g., furosemide and ethacrynic acid) — Enhanced possibility for renal toxicity.

Probenecid — Increased and prolonged blood levels of cephalosporins, resulting in increased risk of nephrotoxicity.

Drug/Laboratory Test Interactions: After treatment with cephradine, a false-positive reaction for glucose in the urine may occur with Benedict's solution, Fehling's solution, or with Clinitest® tablets, but not with enzyme-based tests such as Clinistix® and Tes-Tape®. False-positive Coombs test results may occur in newborns whose mothers received a cephalosporin prior to delivery. Cephalosporins have been reported to cause false-positive reactions in tests for urinary proteins which use sulfosalicylic acid, false elevations of urinary 17-ketosteroid values, and prolonged prothrombin times.

Carcinogenesis, Mutagenesis: Long-term studies in animals have not been performed to evaluate carcinogenic potential or mutagenesis.

Pregnancy: Teratogenic Effects/Impairment of Fertility — Category B: Reproduction studies have been performed in mice and rats at doses up to 4 times the maximum indicated human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cephradine. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

Nursing Mothers: Since cephradine is excreted in breast milk during lactation, exercise caution when administering cephradine to a nursing woman.

Pediatric Use: Adequate information is unavailable on the efficacy of b.i.d. regimens in children under nine months of age.

ADVERSE REACTIONS: Untoward reactions are limited essentially to G.I. disturbances and, on occasion, to hypersensitivity phenomena. The latter are more likely to occur in persons who have previously demonstrated hypersensitivity and those with a history of allergy, asthma, hay fever, or urticaria.

(continued on next page)

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(continued)

The following adverse reactions have been reported following use of cephradine: G.I. — Symptoms of pseudomembranous colitis can appear during antibiotic therapy; nausea and vomiting have been reported rarely. Skin and Hypersensitivity Reactions — mild urticaria or skin rash, pruritus, joint pains. Blood — mild transient eosinophilia, leukopenia and neutropenia. Liver — transient mild rise of SGOT, SGPT, and total bilirubin with no evidence of hepatocellular damage. Renal — transitory rises in BUN have been observed in some patients treated with cephalosporins; their frequency increases in patients over 50 years old. In adults for whom serum creatinine determinations were performed, the rise in BUN was not accompanied by a rise in serum creatinine. Others — dizziness, tightness in the chest, and candidal vaginitis.

DOSAGE: Adults — For respiratory tract infections (other than lobar pneumonia) and skin and skin structures infections: 250 mg q. 6 h or 500 mg q. 12 h. For lobar pneumonia: 500 mg q. 6 h or 1 g q. 12 h. For uncomplicated urinary tract infections: 500 mg q. 12 h; for more serious UTI, including prostatitis, 500 mg q. 6 h or 1 g q. 12 h. Severe or chronic infections may require larger doses (up to 1 g q. 6 h.).

Children over 9 months of age — 25 to 50 mg/kg/day in equally divided doses q. 6 or 12 h. For otitis media due to *H. influenzae:* 75 to 100 mg/kg/day in equally divided doses q. 6 or 12 h but not to exceed 4 g/day. Dosage for children should not exceed dosage recommended for adults. There are no adequate data available on efficacy of b.i.d. regimens in children under 9 months of age.

For full prescribing information, consult package insert.

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As an organization accredited for continuing medical education, the Indiana University School of Medicine certifies that this CME activity meets the criteria for one credit hour in Category 1 for the Physician's Recognition Award of the American Medical Association, provided it is used and completed as designated.

To obtain Category 1 credit for this month's article, complete the quiz on page 285.



The Diagnosis and Management of Impotence

JOHN J. MULCAHY, M.D.
Indianapolis

IMPOTENCE, or the inability to achieve an erection suitable for intercourse, has long been a frustration for mankind. The problem has always existed, and men have suffered in silence. Now, with changing sexual mores and improved modalities for treating this malady, men are more open in discussing the problem and will often readily complain of sexual deficiencies to the primary physician.

About one in 10 males suffer from impotence, or approximately 250,000 men in Indiana. A marked increase in incidence occurs after age 55, so that most men, by the latter part of the 7th decade, are having difficulty with sexual performance. We presently classify impotence into two types: psychogenic, perhaps better termed situational; and organic, or disease related, erectile dysfunction. It was formerly thought that over 90% of impotence was situational, but today, with knowledge gained from modern testing techniques, we have learned that more than half of the cases are organic.

Psychogenic Impotence

Situational impotence probably has occurred to every man at one time or another. Fear, pain, fatigue, anger, worry and other emotions, when strong enough, can impede one's ability to concentrate in achieving an erection. The older one gets, the more concentration is needed. Failure may occasionally occur but when the emotions pass and equanimity returns, so too does erectile ability in most instances. In some circumstances, however, remembrance of previous failure nurtures anxiety, and the fear of subsequent failure reinforces the inability to perform when opportunity for sexual activity presents itself. This vicious cycle of anxiety reinforcing erectile failure may become established, and chronic psy-

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TABLE 1

Disease States Associated with Impotence

Endocrine:
- Diabetes Mellitus
- Hyperprolactinemia
- Gonadal dysfunction with androgen deficiency
- Numerous endocrinopathies with hormonal imbalance

Vascular Diseases:
- Hypertension
- Aorto-iliac occlusive disease

Neurologic Diseases:
- Spinal cord injury
- Multiple sclerosis
- Parkinsonism
- Epilepsy—especially temporal lobe epilepsy

Post Surgical:
- Aorto-iliac bypass graft
- Radical prostatectomy
- Abdominal perineal resection

Penile:
- Priapism
- Peyronie's disease
- Penile trauma

Renal Failure

chogenic impotence may be the result. This is especially true in patients with certain basic personality disorders.

Organic Impotence

A number of diseases, injuries and medications are known to adversely affect erectile function. An erection occurs by the shunting of blood into the venous sinusoids of the corpora cavernosa. When innervation of this shunting mechanism is interrupted or blood flow into the sinusoids is compromised, impotence occurs.

Table 1 delineates some of the illnesses commonly associated with erectile failure. Juvenile onset diabetics may present as early as the mid-20s with erectile difficulty, and this disability is seen in perhaps half or more of diabetics by age 50. Hyperprolactinemia is a very rare condition which may result in diminished sexual interest with or without frank impotence. About half of these patients will have pituitary tumors, and a thorough neuroendocrine workup is mandatory. Response to surgery or prolactin inhibitors is dramatic in restoring sexual aggressiveness. These medicines, however, are no more effective than placebos when prolactin levels are initially normal.

Testosterone is essential for normal sexual functioning, and with diminished levels proper sexual performance is difficult. This problem is very unusual in patients complaining of impotence, and circulating testosterone levels do not normally diminish until the seventh decade.

Hypertension is another common disease which may be associated with erectile dysfunction. Frequently, patients in their 50s with long-standing hypertension will notice a diminution in the strength of their erections. It should be determined whether the disability is due to the effects of the hypertension per se or to the antihypertensive medications used to control the disease. As seen in *Table 2,* many antihypertensives can contribute to impotence.

The various neurologic diseases present a spectrum of erectile dysfunction varying from strong reflex erections to NO erections at all. The capability in each patient is unpredictable, and each situation must be considered individually. Priapism and Peyronie's disease result in scarring of the erectile tissues and impede the influx of blood into the venous sinusoids when the cicatricial process is severe.

TABLE 2

Medications Known to Alter Male Sexual Function

- Alcohol
- Anticholinergics
- Anti-depressants
- Antihypertensives:
  - Catapres
  - Ismelin
  - Aldomet
  - Minipress
  - Inderal
  - Reserpine
  - Aldactone
- Barbiturates
- Estrogens
- Marijuana
- Narcotics
- Sympatholytic agents
- Tranquilizers

Diagnosis

A good history will enable the physician to differentiate most cases of psychogenic from organic impotence. An abrupt cessation of erections without obvious cause, the presence of morning erections, adequate erectile activity at one time and deficient activity at another, are all hallmarks of situational impotence. The gradual deterioration of the turgor of the erection over a number of months or years coupled with a progressive shortening of the interval the patient is able to maintain the erection are characteristics of organic impotence. Careful physical examination may uncover the plaques of Peyronie's disease, and sensory evaluation of the perineum and genital area may reveal an unsuspected nerve deficit. In most instances, however, physical examination of the genital region in patients with impotence is normal.

If the diagnosis is still in doubt, nocturnal penile tumescence monitoring should be performed. This test is based on the fact that all males above age 2 whose erectile mechanism has not been suppressed by disease, surgery or medication will experience erections during the REM (Rapid Eye Movement) portion of sleep, which usually comprises about 20% of sleep time. Two mercury-filled strain gauges are placed, one at the base and one at the tip of the penis. A transducer and stylus graphically record the amount of stretch of the penis, and a record of the nocturnal erectile activity is made. This can be quantified into full, partial or no erections. Patients with organic impotence have diminished or no REM sleep erectile activity. Possible sources of error include feigning sleep by the patient and improper sizing of strain gauges around the penis.

Psychologic screening tests such as the MMPI (Minnesota Multiphasic Personality Inventory) have not been helpful in distinguishing organic from psychogenic impotence. They will invariably show a depressed patient, but cannot tell whether the depression is causing the impotence or the impotence is giving rise to the depression. Penile blood flow and blood pressure have been measured using a Doppler stethoscope and digital pressure cuff. These methods are also unreliable and are frequently normal in the patient with organic impotence. In almost all patients with organic impotence, the blood seems to flow into the penis in a normal fashion, but does not properly flow into the venous sinusoids of the corpora cavernosa, and the exact neurohumoral and vascular mechanisms are as yet unclear.

Serum prolactin and testosterone levels need not be obtained in all impotent patients, but should be measured in the patients with loss of libido or sexual disinterest. Even in this group, however, the yield of abnormal results is relatively low, and most patients presenting with these symptoms will have psychologic causes of their sexual lassitude such as depression or obsessive-compulsive personality disorders.

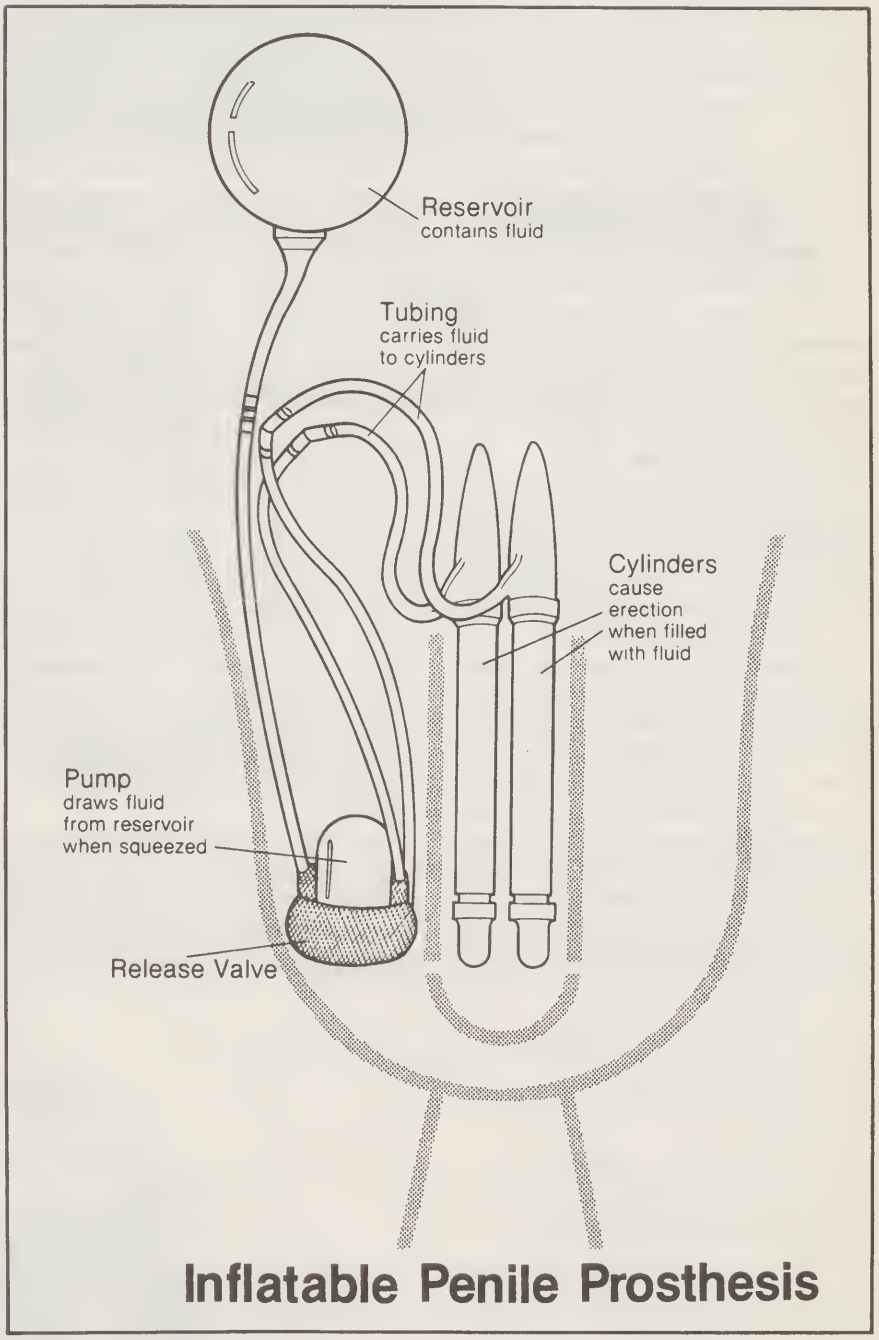


FIGURE 1

Treatment

The underlying emotional problems resulting in transient psychogenic impotence can sometimes be handled by a frank talk, which may uncover preconceived sexual myths. If problems remain, short term sexual counseling should be considered; referral to a psychologist interested in sexual therapy is often useful. Exercises in which foreplay is encouraged but vaginal intromission is prohibited relieve the anxiety and burden of "having to perform" in the patient caught in the vicious cycle of psychogenic impotence. Once the fear of failure is removed, he can enjoy the preliminary activities and soon notices that his erection has returned. If the problem has been present for many years, or if it is accompanied by other severe psychologic disorders, the results of therapy are less rewarding.

With the exception of some cases of endocrine imbalance and renal failure, it is rare that organic impotence can be reversed. It is impossible to correct the microangiopathy of diabetes mellitus or clear the accelerated atherosclerosis of hypertension. In a small percentage of cases, perhaps less than 20%, the turgor and duration of the erection may be somewhat enhanced with vasodilator medications.

Sublingual nitroglycerine or Peritrate

20 mg at bedtime can sometimes improve a 50% erection to 75 or 80% of its former maximal turgor, as well as prolong its duration to a degree. Patients with hypertension as the underlying cause of dysfunction or those with the idiopathic impotence of aging which may be a sequel of atherosclerosis seem to respond better to these drugs than do patients with diabetes mellitus or intrinsic penile disease. L-Dopa has also enhanced the erectile function of some patients with Parkinson's disease. The use of androgens in the absence of documented hypogonadism has been very disappointing in treating impotence.

When conservative treatments have failed to restore erectile capability, very effective prosthetic penile implants are now available. The prototypes of these devices were developed about 10 years ago, and improvements over the decade have resulted in fewer malfunctions.

There are two classes of penile prostheses. One class, the semi-rigid rods, includes the Small-Carrion, the Jonas, and the Finney prostheses. They are all paired, solid silicone rods with various filling materials, hinge mechanisms, and degrees of flexibility. They are inserted snugly into each corpus cavernosum. The resulting semi-rigid penis is very adequate for erection but maintains its stiffness continuously.

The other type of device is the inflatable penile prosthesis *(Fig. 1)*. Two flexible balloon-like cylinders are connected to a pump located in the dependent portion of the scrotum, which in turn is connected to a reservoir of fluid located beneath the abdominal muscles. Fluid is transferred back and forth between the reservoir and cylinders by mechanically squeezing the pump through the scrotal wall. The penis can therefore be inflated or deflated as desired and has a flaccid appearance at rest. Mechanical problems have been more prevalent with this type of device, mostly related to its hydraulic functions.

The age range of patients who have received penile prostheses is 16 to 84, with an average in most series in the late 40s. Penile sensation is maintained, ejaculation is present in most instances, and a number of patients have fathered children with the aid of these prostheses. The percentage of patient and partner acceptance and gratification has been very high.

The main criteria for implantation include failure of conservative therapy to restore erections, motivation to continue sexual activity, and inclusion of the spouse in discussions of post operative expectation. Patients with psychogenic impotence have undergone implantation of penile prostheses when the erectile failure could not be corrected by other means. In many such instances the basic psychologic problem has improved once the anxiety and depression related to the impotence have been removed. Although there are about 10 million impotent males in the United States, only about 75,000 prostheses have been implanted in the last decade. As erectile capability wanes in the twilight years so too does libido, and many men come to regard sexual function as a less prominent feature of their lives.

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A Systemic Approach to the Acute Treatment of Decompensated Chronic Obstructive Pulmonary Disease

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THE TERM chronic obstructive pulmonary disease, although commonly used, is imprecise, and subject to confusion among physicians who are called upon to treat this disorder. Its ambiguity is due to the widely divergent pathological entities that ultimately produce marginally reversible airflow obstruction and significant impairment of quality and duration of life. A functional division of the components of airways obstruction into intraluminal and structural disorders assists the clinician in therapy by best directing specific interventions.

In chronic bronchitis, intraluminal hypersecretion of mucous and inflammatory exudate necessitate measures specifically intended to increase normal clearance capacities such as hydration and postural drainage. The loss of normal alveolar architecture and gas exchange parenchyma limit the potential for reversibility in structural disorders such as emphysema, and an orderly quest for bronchospasm, edema and inflammatory cell infiltration is required. It is the frequent coincidence of the intraluminal and structural dysfunction that has produced the term chronic obstructive pulmonary disease.

COPD Conditions

The most common conditions associated with the term COPD are chronic bronchitis and emphysema. The former is predicated on the basis of a symptom: sputum production. The latter is a pathological diagnosis. These conditions converge in a clinical presentation of breathlessness and minimal reversibility to inhaled bronchodilators, which differentiates them from asthma. This difference has profound implications both in prognosis and therapy, and statements referrable to asthma are not necessarily translatable into the therapy of COPD.

The degree of overlap between chronic bronchitis and emphysema in any patient is determined by history, physical examination, and use of the pulmonary function laboratory. Once a component diagnosis is established, prognosis and intervention must be individualized.

Chronic Bronchitis

The predominant bronchitic presents relatively early in life with complaints of chronic productive cough and frequent respiratory infections, which are often complicated by right-sided heart failure. Forced expiratory volumes and flow rates are reduced and show variable degrees of reversibility. Arterial hypoxemia and significant hypercarbia are often disproportionately abnormal for the degree of ventilatory impairment, and pulmonary arterial hypertension is a common finding.

The patient usually presents with a mesomorphic dusky body habitus and is commonly referred to as the Blue Bloater. Hypertrophic mucous glands, edema and profuse inflammatory exudate are the pathological response to chronic irritation and result in increased bronchopulmonary secretion and airway obstruction. This viscous exudate and intraluminal inflammation are responsible for impaired distribution of ventilation, hypoxemia and frequent bronchopulmonary infection.

The goal of therapy in severe decompensated chronic bronchitis should be minimization of the inflammatory response and augmentation of normal mucociliary clearance mechanisms. In this respect the value of corticosteroids has recently been demonstrated.[1] A common error in the management of this disorder is the reliance upon inhaled B-agonists as the sole form of therapy.

Emphysema

Clinical emphysema becomes symptomatic later in life with dyspnea as its predominate manifestation. Sputum production is minimal and right-sided heart failure is coincident with exacerbations of respiratory insufficiency rather than the constant companion of the bronchitic. Expired lung volumes and flow rates are reduced to the same degree as that of chronic bronchitis; however, residual volume increases are far more dramatic and are responsible for the clinical findings of the tympanic chest and flat mechanically inefficient diaphragms.

Arterial blood gas values tend to be more normal than those of the bronchitic until very late in the course of the disease. Tissue destruction and dilation of terminal air spaces produce a flaccid, easily distended lung which collapses readily on forced expiration due to loss of normal elastic recoil. The loss of normal capillary distribution in these dilated terminal air spaces results in a much smaller area for effective gas exchange and is the basis for the reduced diffusing capacity seen in emphysema.

Thus, two distinct pathological processes exist which ultimately produce minimally reversible airflow obstruction. Both emphysema and bronchitis co-exist in most patients with the clinical diagnosis of COPD.

Dyspnea

Irrespective of the precise pathology, the patient with obstructive lung disease is generally seen for the complaint of shortness of breath. This nonspecific symptom can be provoked in a normal untrained subject as well as patients having obstructive airway disease and a variety of other non-pulmonary disorders.

Fishman has demonstrated that dyspnea occurs when a subject's minute ventilation exceeds 50% of the maximum voluntary ventilation capable in the standard 12-second maneuver performed in the pulmonary laboratory.[2] A useful estimate for this value is obtained by multiplying the patient's forced expiratory volume (FEV_1) at one second by 35. Using this calculation it can be seen that a severely disabled patient with an FEV_1 of 500 ml would perceive dyspnea at minute ventilations as low as 10 liters per minute.

While it is true that highly motivated trained athletes can exceed this ratio without symptoms, its clinical utility allows us insight as to why patients generally present with far advanced lung disease rather than at a time when intervention could be more productive.

The paucity of unavoidable exercise in our society allows individuals with lung disease to maintain a low ventilatory requirement in most activities of daily living. It is only when ventilatory requirement is increased by metabolic or physical stress or the ventilatory capacity is decreased by pulmonary dysfunction that significant symptoms become evident.

Decreasing lung function with age is a normally expected physiologic occurrence. A non-smoking subject is expected to demonstrate a decline in forced expiratory volume at one second (FEV_1) of approximately 10 ml per year. The rate of this degeneration is increased five to 10 times in chronic cigarette smokers with averages of 50-75 ml per year decline in FEV_1 during long-term follow-up.[3] This accelerated impairment of ventilatory function in concert with the generally delayed presentation of the symptomatic patient with obstructive lung disease is the basis of rapid onset of symptoms and progressive disability seen in this population.

Dyspnea at rest or upon minimal exertion is the common end point in severe obstructive lung disease. Mismatched ventilation and perfusion, increased deadspace ventilation, and arterial hypoxemia combine to reduce the efficiency of ventilation. Airflow obstruction with its attendant increased work of breathing limits its capacity. It is the tenuous balance of requirement and capacity that determines the status of the patient.

Once significant symptoms have become established, all forms of COPD share the defect of marginal ventilatory reserve. The inability to increase ventilatory output in response to metabolic demand is only one factor in the overall pathogenesis of this process. Other vital organ systems may be severely compromised as a result of primary pulmonary disease.

Effect on the Heart

The heart is particularly susceptible to dysfunction precipitated by severe airways obstruction. The loss of the pulmonary vascular bed in emphysema, and hypoxic-induced vasospasm in chronic bronchitis serve to increase right ventricular afterload and impair cardiac function. Polycythemia, common in chronic bronchitis, may add significantly to resistance in the pulmonary and systemic circulation. The overdistended right ventricle may cause the interventricular septum to impinge upon the left ventricle, impairing its performance.

The normal pulmonary vascular bed is capable of maintaining a normal or only slightly elevated mean pulmonary artery pressure despite significant increases in cardiac output. This is accomplished by recruitment of closed or partially open pulmonary capillaries in nondependent lung zones. In chronic airways obstruction, vasospasm and loss of normal pulmonary capillary architecture presents a significant increase in right ventricular afterload. Any increment in cardiac output is accompanied by a correspondingly large increase in mean pulmonary artery pressure.

Pulmonary Artery Pressure

In acute respiratory insufficiency, arterial hypoxemia and hypercarbia are common. Pulmonary arterial vaso-

spasm presents significant resistance to flow through the right-sided circulation when mean arterial oxygen saturation declines below 90%. Acidosis further increases any existing degree of pulmonary arterial constriction with subsequent increase in mean arterial pressure.[4]

It must be emphasized that the systemic and pulmonary circulations differ in their response to acute preloading and afterloading and this difference has significant implications both in pathogenesis and therapy of decompensated obstructive airways disease. In the acutely afterloaded right ventricle a significant decline in stroke volume can be demonstrated when mean pulmonary arterial pressures are increased. For correspondingly proportionate increases in mean aortic pressure, left ventricular effectiveness is minimally compromised. The well-appreciated Starling effect of increased ionotropy resulting from increases in left ventricular diastolic pressure is not shared by the right ventricle which benefits little in the acutely preloaded state.[5]

Conceptually, the right ventricle should be viewed as a volume storage container whose primary function is to regulate inflow into the gas exchange area of the lung rather than the adaptable systemic pump which is the primary function of the left ventricle. Therapy known to benefit left ventricular function is not directly translatable into improvement in right ventricular function.

A significant number of stable patients with chronic obstructive pulmonary disease have been demonstrated by Berger and Mathay to have abnormally low right ventricular ejection fractions at rest. Of clinical importance is the associated observation that this patient population when subjected to physiologic degrees of exercise had a marked increase in the proportion demonstrating right ventricular dysfunction.[6]

When cor pulmonale progresses to right ventricular failure, cardiac output is unable to appropriately increase in response to metabolic demands. Mathur, *et al* have demonstrated no improvement in right ventricular function associated with COPD after administration of digitalis unless the left ventricular ejection fraction was initially abnormal.[7] As cardiac output falls, tissue hypoxia and metabolic acidosis ensues.

Recalling that increased cardiac output is the response to almost any form of metabolic stress, it can be seen that the cycle of hypoxic-induced increases in pulmonary pressure, and declining right ventricular function may result in decreased left ventricular output. Tissue hypoxia and attendant acidosis may further increase pulmonary artery pressure and perpetuate this cycle.

Acute respiratory failure is often conceptualized as the prototipic upper respiratory infection superimposed upon the chronically diseased lung. When caring for the patient with airways disease it must be recalled that it is the balance between oxygen delivery, carbon dioxide elimination and tissue oxygen requirement that defines the status of the patient. Any form of metabolic stress can indirectly precipitate respiratory failure. The increased oxygen consumption generated by acute febrile diseases or hyperthyroid states may be beyond the ventilatory capacity of the patient with obstructive lung disease. Significant left ventricular failure with its increased lactate production as well as parenteral hyperalimentation with its high carbohydrate ratio may be the cause of clinically significant hypercarbia.[8]

Evaluating the Patient

While bronchopulmonary infection, both viral and bacterial, are generally the first consideration of physicians caring for this population, of equal importance are environmental irritants, cardiovascular factors and disorders of the bony thorax and respiratory muscles. Commonly present environmental irritants such as sulfur dioxide are known to increase airways reactivity to inhaled acytyl choline in a normal individual and are potent inducers of bronchospasm in patients with reactive airways. The hydration of sulfur dioxide by normal airways moisture liberates sulfuric acid, a potent irritant. Of increasing concern is the high proportion of sulfur dioxide liberated in the combustion of kerosene, now commonly used as supplemental heating in the homes of the indigent.

Reactions to the environmental changes such as seasonal allergens in the atopic and airways heat loss during activity in cold climates are significant components in the overall production of respiratory dysfunction in the susceptable population.[9]

Contributions to pulmonary vascular resistance by secondary polycythemia or subclinical embolic disease should always be considered in the evaluation of the patient with COPD. Disorders of the pulmonary bellows function, either at the muscle or bony thorax level, are important in the evaluation of the decompensated patient.

Commonly overlooked disorders include costochondritis, rib fractures and pleuritis, producing limitation of respiratory excursion. Investigation of the respiratory musculature, including diaphragmatic and accessory muscles of respiration, frequently can be fruitful in identifying non-parenchyma causes of respiratory dysfunction. In addition to the acute myopathic disorders typified by acute poliomyelitis and Guillian-Barre Syndrome, chronic neuromuscular diseases such as dermatomyositis, myasthenia gravis, amyotrophic lateral sclerosis, as well as nutritional or elemental deficiencies such as hypophosphatemia, should be investigated in the patient with increasing levels of alveolar hypoventilation.

Exposure to altitude in routine commercial air travel may excessively tax the patient with marginal lung function. In normal commercial airliners the cabin pressure is maintained at an altitude equivalent of 8,000 feet. This reduces the normal alveolar PO_2 from 100 torr to approximately 70 torr. This reduction may have profound effects upon the patient with chronic airways obstruction.[10]

Prognostic Factors

Failure to recognize the multi-systemic nature of severe obstructive lung disease often leads to a delay in the institution of vigorous closely-monitored therapy. Fischl, *et al* retrospectively reviewed the predictive value of several non-specific physical signs and symptoms in predicting the need for hospitalization in acute asthma (see *Table 1).*[11] In this series, a score of one was assigned for the presence of significant tachycardia, tachypnia, significant pulsus paradox, marked decline in peak expiratory flow rates, severe subjective dyspnea and use of accessory muscles of respiration or audible wheezing. Patients demonstrating five or more of these symptoms ultimately required hospitalization for their therapy. The successfully treated outpatient population had a mean score of 1.6.

It is of note that the presence of these physical findings on initial presentation predicted outcome. This occurred despite vigorous protocol therapy in a disease process which by definition is reversible and generally occurs in a younger population than that of chronic obstructive pulmonary disease. Utilizing these simple criteria in the decision-making process regarding the optimal treatment regimen of the patient with chronic obstructive lung disease is prudent.

Weaning Criteria

Several authors have provided widely acceptable weaning criteria which are in frequent clinical use in the decision-making process regarding the discontinuance of mechanical ventilation in the patient with obstructive lung disease (see *Table 2).*[12,13] Recognition of the marginal pulmonary reserve present in these patients prevents the attempted weaning until the patient is improving, alert, responsive, in a stable clinical condition with adequate arterial oxygenation with a minute ventilation of less than 10 liters per minute. Demonstration that there is at least some degree of ventilatory reserve remaining is mandated by the necessity to be able to double this resting ventilation upon command.

TABLE 1

Prognostic Factors Predicting Required Hospitalization in Asthma

Pulse rate	> 120 beats/min
Respiratory rate	> 30 breaths/min
Pulsus paradoxus	> 18 mm Hg
PEFR	< 120 liters/min
Moderate-severe dyspnea	
Moderate-severe use of accessory muscles	
Moderate-severe wheezing	

Modified from Fischl, *et al* [2]

Pulmonary mechanics and gas exchange function is assessed by minimum inspiratory mouth pressure of 20 centimeters of water, a vital capacity of greater than 10 mg per kilogram body weight, respiratory rate of less than 30 per minute and an acceptable deadspace to tidal volume ratio. In the office or emergency room evaluation of a patient with decompensated chronic obstructive lung disease, any diagnostic approach should include evaluation of several of these observations. Earlier recognition of impending respiratory failure with prompt admission and careful monitoring may preclude more drastic interventions later in the patient's course.

Emergency Precautions

Therapeutic interventions often undertaken in emergency room settings in the patient with decompensated chronic obstructive pulmonary disease include inhaled oxygen, hydration, beta-agonists, and intravenous theophylline. As previously demonstrated, care must be used in altering right ventricular preload or afterload in a patient with chronic obstructive pulmonary disease, and close attention to hemodynamic variables is necessary.

TABLE 2

Weaning Criteria

1. Stable, improving patient
2. Alert and responsive
3. Adequate arterial oxygen content
4. Resting minute ventilation < 10 L/min
5. Able to double resting minute ventilation
6. Maximum inspiratory mouth pressure 20 cm H_2O
7. Vital capacity < 10 ml/kg body weight
8. Respiratory rate < 30 minute
9. Dead space/tidal volume < 0.6

Modified from Bone, RC[3]

Most subjects are elderly, and on the basis of metabolic stresses present with pre-existing tachycardia, and often have used their inhaled beta-agonists to an excessive degree in an attempt to attain improvement. As such, they are at risk for potential toxicity should an additional beta-agonist burden be imposed. The recent institution of rapid serum assays for theophylline have produced the ability to closely monitor the levels of this agent. While there is a good clinical and biological agent evidence that these agents are salutory in asthma in the 10-20 microgram per milliliter range,[14] their role in the therapy of acutely decompensated chronic obstructive pulmonary disease has not been established in this concentration.[15] As such, while assessment of theophylline level may prove useful in ruling out acute toxicity, the question of acute theophylline loading in an emergency room setting may have clinical significance. This is particularly important when it is recalled that the primary metabolism of these agents is hepatic clearance and in acute cor pulmonale passive congestion of the liver is observed and impaired metabolism of these agents may occur.

All sympathomimetic agents have the well-appreciated ability of dilatating the pulmonary vascular bed. When this vasodilation occurs in areas of hypoxic-induced vasospasm, a worsening of ventilation perfusing matching may occur and further potentially dangerous reductions of arterial oxygen concentration may result.

Excessive administration of oxygen may reduce the oxygen-dependent ventilatory drive and result in alveolar hypoventilation. Bone, *et al* have demonstrated the difficulty of predicting which patients with obstructive airways

disease in an acute exacerbation will require mechanical ventilatory support after controlled oxygen therapy. In a series of 50 patients with decompensated chronic obstructive pulmonary disease, knowledge of the most recent stable outpatient pulmonary function or arterial blood gas values were not helpful in predicting which patients would require intubation and mechanical ventilation.[16] Both patients requiring and not requiring mechanical ventilatory support had no statistically significant difference between these laboratory data.

Thus, caution should be exercised and frequent determinations of arterial blood gas values should be made after institution or changes are made in inspired oxygen concentration.

Conclusion

Severe chronic obstructive pulmonary disease may affect many organ systems and is poorly amenable to most forms of acute therapy. Often the therapies themselves may prove harmful to the patient, and the normal therapeutic guidelines used in predicting potential toxicity may not be valid. The inability to increase ventilatory output in response to often modest metabolic demands leaves this population in a chronically unstable state. The multisystemic nature of the disorder and marginal ventilatory reserve should place these patients in a separate category, distinctly different from that of reversible airways dysfunction in asthma.

Imperative in the formulation of any therapeutic plan is the provision for adequate clinical and laboratory monitoring. Non-specific physical findings such as tachypnea and tachycardia should be closely quantified and followed. Hospitalization may be required for the safe diagnosis and therapy of almost any subjectively significant complaint, especially increased dyspnea or its new appearance at rest.

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TOPICAL SUNSCREENS

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THE CLINICAL SIGNS of sun-damaged skin are well known to the clinician and include premature wrinkling, hypo and hyperpigmentation, actinic keratoses, keratoacanthoma, Bowen's Disease, basal cell carcinoma and squamous cell carcinoma.

Topical sunscreen agents provide a means of protecting the skin from the adverse effects of sun exposure. The damaging effects of sun-exposure on the skin are cumulative and can be seen microscopically early in life.[1] Data from animal studies have shown that topical sunscreens can prevent skin cancer and degenerative connective tissue changes in the dermis.[2-3] Contrary to popular opinion, sunscreens do not promote tanning. Many sunscreens do allow some tanning, but the most effective sunscreens do not allow tanning at all. In this article, we will discuss modern sunscreen agents and provide guidelines for physicians to recommend appropriate sun protection for their patients.

The FDA has classified sunscreens according to a "sun protection factor" (SPF) *(Table 1)*. The SPF is a measurement of the effectiveness of a sunscreen in protecting against sunburn. The SPF is defined as the ratio of the time required to develop minimal sunburn with the sunscreen compared to the time required to develop minimal sunburn without it. SPF numbers on sunscreen labels range from 2-15. The products with higher SPFs provide greater protection. SPF 15 sunscreens contain combinations of chemical agents and allow very little tanning to occur. SPF 2 sunscreens allow considerable tanning but sun protection is consequently less. Many factors can affect a sunscreen's SPF including swimming, sweating, season, latitude and humidity.

The two major categories of sunscreens are the reflectors and the absorbers. The reflectors contain agents such as zinc oxide and titanium dioxide, which reflect and scatter wavelengths or ultraviolet (UV). The reflecting agents are opaque, thick, and cosmetically messy and patients are often unwilling to use them.

The absorbers selectively absorb sunburn-producing UV-B and also UV-A. Para-aminobenzoic acid (PABA), PABA esters, benzoic acid, cinnamates, salicylates, and anthranilates all absorb maximally in the UV-B range. Broad spectrum absorbing agents such as benzophenones absorb both UV-B and UV-A and can be added to PABA-containing sunscreens to increase the SPF.

Sunscreens should be prescribed according to a patient's sun-reactive skin type *(Table 2)*. Individuals with skin types I and II are at the greatest risk for premature skin aging and skin cancer, and should use sunscreens with the highest available SPF. Sunscreens with SPFs of 15 include PreSun 15, Supershade 15, Pabanol, Total Eclipse and Elizabeth Arden Sun Care 15. Individuals who tan fairly well (skin types III and IV) can use sunscreens with SPFs 4-8.

Some sunscreens may lose effectiveness rapidly following swimming or heavy perspiration. PABA in alcohol formulations are better absorbed by the lower layers of the epidermis so the "wash-off" effect is reduced. It is best,

TABLE 1
Sun Reactive Skin Types

Skin Type	Sunburn History	Examples
I	Always burns, never tans	Irish-Scots, redheads
II	Always burns, then slightly tans	Blue-eyed, fair-skinned Caucasians
III	Sometimes burns, always tans	Darker Caucasians
IV	Burns minimally, always tans	Caucasians with Mediterranean ancestry
V	Rarely burns, tans well	Spanish, Oriental, Indian
VI	Never burns; deeply pigmented	Black-skinned Negroes

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however, to reapply sunscreens after swimming or heavy perspiration to re-establish maximum protection.

Sunscreens in clear alcoholic vehicles are easy to apply but patients have difficulty observing if they have skipped any skin areas. The "skipped areas" will be unprotected from UV. Many patients prefer sunscreen creams both for the moisturizing effect and also the ease of observing where the sunscreen has been applied.

Patients taking certain medications may develop drug-induced photosensitivity reactions after exposure to UV. The list of these medications includes chlorpromazine, thiazide diuretics, sulfonamides, tetracyclines, amitriptyline hydrochloride, sulfonylureas, griseofulvin and benoxaprofen. SPF 15 sunscreens containing PABA-benzophenone combinations are effective in preventing drug-induced photosensitivity reactions.

Sunscreens containing 5% PABA often stain light-colored clothing a yellow-brown color. The stain often fades with repeated washing. PABA may rarely cause contact or photocontact dermatitis, and may also be irritating when prepared in alcoholic vehicles. Some sunscreens can cause stinging and burning on the face during sun exposure. Patients who are allergic to compounds that may cross-react with PABA such as benzocaine, para-phenylenediamine and sulfonamides can develop allergic reactions to PABA-containing sunscreens.

Table 3 provides a list of guidelines for sun protection that physicians may wish to pass on to their patients.

TABLE 2

Classification of Topical Sunscreens

Chemical Ingredients	Commercial Name	SPF	Recommendations for Sun-Reactive Skin Type
Para-aminobenzoic acid (PABA) in alcohol formulations	Pabanol	15	I, II
	PreSun	15	I, II
Broad-spectrum sunscreens containing PABA and other agents	PreSun 15	15	I, II
	Supershade 15	15	I, II
	Total Eclipse	15	I, II
	Solbar Plus 15	15	I, II
	Elizabeth Arden Sun Care 15	15	I, II
Esters and derivatives of PAVA	Eclipse	10	I, II
	Blockout	6	III, IV
	Pabatilm	6	III, IV
	Sundown	6	III, IV
	Sun Guard	6	III, IV
Non-PABA chemical sunscreens: benzophenones, cinnamates	Solbar	7	III, IV
	Piz Buin	6	III, IV
	Uval	6	III, IV
Physical sunscreens: titanium dioxide, zinc oxide, etc.	A-Fil Cream	4-8	I-IV
	Reflecta	4-8	I-IV
	RVPaque	4-8	I-IV
Lip Screens: PABA formulations	Chap Stick Lip Balm	--	--
	PreSun	--	--
	RVPaba	--	--

TABLE 3

Guidelines for Sun Protection

1. Avoid outdoor activities between 10 a.m. and 2 p.m. in the summer months (therefore, play golf, tennis, swim, etc. in early morning or later afternoon hours.)
2. If the person gets minimally sunburned at midday, the burn may be made worse by further UV exposure late in the afternoon.
3. Significant amounts of UV can be reflected onto the skin by sand, snow, and concrete.
4. Increased UV exposure can occur during high altitude activities such as mountain climbing or snow skiing.
5. Certain drugs and cosmetics may increase susceptibility to sunburn.
6. Wear a hat and long sleeves whenever possible. Tightly woven cotton fabrics provide better protection than knitted polyester or nylon.[4]
7. Use sunscreens even if you wear a hat. The sunscreen will protect from UV that is scattered and reflected into the face.
8. Use a sunscreen with a SPF recommended for your sun-reactive skin type, and for maximum effectiveness, apply it at least 1 hour before exposure.
9. Sunscreens should be applied daily by individuals who are at high-risk for skin cancer and degenerative skin changes (i.e. outdoor workers, and persons who have already had skin cancer.)
10. Men should be sure to apply sunscreens to the helices of the ears.
11. Sunscreens should be reapplied after swimming or heavy perspiration.

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Creatine Phosphokinase-MB Isoenzyme in a Patient with Alcoholic Myopathy

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TSAU Y. HUANG, M.D.
CHIEH J. YANG, M.D.
Gary

Abstract

The CK-MB isoenzyme was demonstrated in a patient with alcoholic myopathy, and was believed to be of skeletal muscle origin. The persistent elevation of CK-MB in a patient with alcoholic myopathy is in contrast to the usual transient increase in myocardial infarction and should not add too much confusion. Although CK-MB isoenzyme has been detected in serum of a wide range of noncardiac diseases, it is still a highly specific and sensitive criterion of myocardial injury.

MUSCLE AFFECTION in alcoholism was first described by Jackson in 1822.[1] He stated that neurologic complication could not explain all of the signs manifested by alcoholic patients and believed that their muscles had to be abnormal. An interest of muscle affection in alcoholism was not renewed until Hed and associates[2] described in 1955 the first modern case of acute alcoholic myopathy. In 1964, Ekbom and associates[3] described chronic alcoholic myopathy in which there were no signs of acute disease but weakness of the proximal limb and girdle muscles developed gradually.

Although elevation of serum creatine kinase (CK) is almost uniformly observed in patients with acute alcoholic myopathy, and invariably present in patients with chronic alcoholic myopathy,[3-8] only one report describes the presence of CK-MB isoenzyme in a patient with alcoholic myopathy.[9] Here we present data on CK-MB in the serum of another patient with alcoholic myopathy.

Report of a Case

A 41-year-old man was hospitalized in June 1981 because of dizziness and weakness of the proximal limb muscles for two months duration.

At the time of admission, his blood pressure was 130/80 mmHg, with a pulse rate of 80/min. He was afebrile. Past history revealed that he was an alcohol abuser. Serum levels of lactic dehydrogenase (LDH), creatine kinase and aspartate aminotransferase (AST) were all elevated. CK-MB was positive by electrophoresis. Activities of muscle-related enzymes during his hospital stay are summarized in *Table 1.*

Biopsy of the left upper arm and deltoid muscle showed changes consistent with alcoholic myopathy *(Figures 1 and 2).* A consultant at the University of Chicago concurred in our pathological diagnosis. Electrocardiogram showed no cardiac involvement. Result of radionuclide imaging was normal. The patient was denied alcohol and treated symptomatically with good response.

TABLE 1
Activities of Muscle-Related Enzymes

	CK	CK-MB	LDH	AST
		Activity in serum, U/L		
Date	18-106*		58-150*	11-38*
6/10-81	1988	++	421	—
6/11	1713	++	366	96
6/12	2450	++	471	115
6/13	2454	+	396	128
6/15	3000	+	512	141
6/16	——	—	421	109
9/2	765	10	165	36

Dashes indicate "not assayed"
*Reference interval

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A copy of the references related to this article is available from THE JOURNAL, Indiana State Medical Association, 3935 N. Meridian St., Indianapolis, Ind. 46208.



FIGURE 1: Section from the left deltoid muscle shows destruction of muscle fibers with invasion of macrophages and monocytic cells. Hematoxylin and eosin stain ×100.

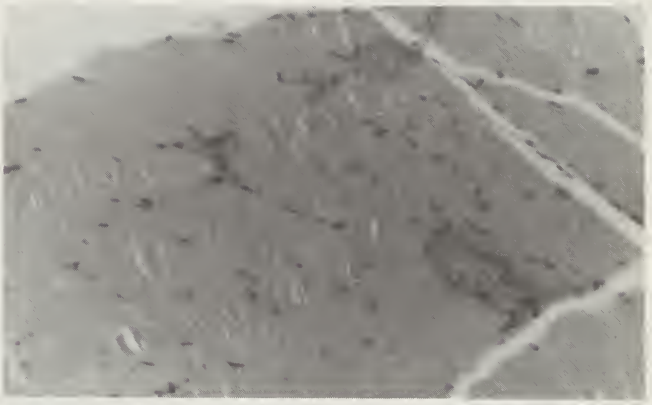


FIGURE 2: Section from the left deltoid muscle shows basophilic degeneration. Hematoxylin and eosin stain ×100.

He was discharged after a 17-day hospital stay.

Material and Methods

Total CK activity in the serum and the CK isoenzyme study were performed either the same day the blood sample was received or the next day after storage at 4°C.

CK activity was estimated at 37°C with an HMA-1600 analyzer (Hycel, Inc., Houston, Tex. 77036) by the kinetic method of Rosalki[10] with reagents from Roche Diagnostics, Division of Hoffmann-La Roche Inc., Nutley, N.J. 07110. The methods for aspartate aminotransferase and lactate dehydrogenase were based on those of Henry, *et al,*[11] and were used with an HMA-1600 analyzer and reagents from Hycel, Inc.

The CK-MB fraction was detected by electrophoresis at pH 8.8 on cellulose acetate by the CK isoenzyme procedure of Helena, Beamount, Tex. and quantitated by the column method described by Yasmineh and Hanson.[12]

Results and Discussion

This patient was a heavy alcoholic, and had signs suggestive of affection of the skeletal muscles. Muscle biopsy showed the histologic evidence of muscle necrosis with mononuclear cell infiltrations. Activities of muscle enzymes were elevated. CK-MB isoenzyme was detectable on several occasions by electrophoresis. Quantitations by column were performed when he was seen in September 1981 as an outpatient.

It is apparent that this patient met the established criteria for the diagnosis of chronic alcoholic myopathy.[7] Alcoholic myopathy can be classified as an acute or chronic form. Acute alcoholic myopathy is characterized by acute onset of muscular symptoms for less than two weeks. In contrast, chronic alcoholic myopathy is characterized by slowly progressive development of weakness and atrophy of the proximal muscles. Our patient seems to fit the chronic form.

Siegel and Dawson[9] reported one alcoholic myopathy patient with circulating CK-MB. Serial tests of myocardial function failed to demonstrate any abnormalities. CK-MB isoenzyme also was demonstrated in their patient's muscle extract. They suggested that circulating CK-MB was of skeletal muscle origin. Our patient's isotopic myocardial scintigraphy and electrocardiography were within normal limits. Therefore, circulating CK-MB of this case is most likely of skeletal muscle origin.

Reports on the CK isoenzyme composition of skeletal muscle are controversial: Various proportions of MB isoenzyme are reported in skeletal muscle, ranging from 0-28%.[13-18] Our previous study of 12 muscle biopsies from five different anatomic locations showed MB fraction ranging from 0 to 1.5%.[19] The wide range reported in the literature is probably attributed to 1) the methodology; 2) variation with anatomic location; and 3) variation among individuals. It has been reported that only the red muscle fibers of type II (e.g., soleus) contain substantial proportion (up to 10%) of MB isoenzyme, while type I fibers (e.g., gastrocnemius) contain negligible amounts (<1%). [20,21]

An increasing number of reports concern CK-MB isoenzyme in the sera of patients who have noncardiac diseases.[22-28] CK-MB was found in the serum of a marathon runner.[29] It may even be present in serum from apparently normal individuals.[13] This raises the possibility of confusion with myocardial infarction. However, the presence of CK-MB isoenzyme in the serum of patients with alcoholic myopathy should not add to much confusion with acute myocardial infarction. In patients with alcoholic myopathy, elevation of CK-MB isoenzyme is persistent. The level will fall in response to therapy.

Accidental Use of Superglue in the Eye

J. KEMPER CAMPBELL, M.D.
Lincoln, Neb.

THE HAZARDS of mistaking similarly packaged ophthalmic drugs have been previously reported.[1,2] Similar confusion with a nonophthalmic compound is now described.

Case Report

A 35-year-old man was working outdoors April 24, 1982, when his eyes began to itch. He found a bottle of what he believed contained his wife's eyedrops on the windowsill. Immediately upon placing one drop into his right eye, he experienced the onset of severe pain in the eye and an inability to open his eyelids. Inspection of the bottle revealed that he had mistakenly instilled Superglue into the eye.

He was taken to the local emergency room where the examining physician was unable to visualize the cornea because of the firm lid adhesion present.

He was seen at the St. Elizabeth Community Health Center emergency room approximately three hours after his initial injury. His right lids and lashes were firmly bonded together by the adhesive. Under magnification, surgical scissors were used to carefully separate his lids and remove all lashes.

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Correspondence: 630 N. Cotner, Suite 105, Lincoln, Neb. 68505.



Superglue (far right) is shown with various nonprescription eyedrop containers.

As soon as the lids separated, a gush of tears and debris which had been trapped behind the lids exited. A large central corneal abrasion was then noted. A clump of dehisced corneal epithelium and Superglue was present in the inferior conjunctival fornix.

Pressure patching, topical antibiotics, and cycloplegic drops healed the abrasion, though the patient continued to be quite uncomfortable for the next 72 hours.

When last seen May 6, 1982, the patient again had 20/20 corrected vision acuity and his cornea was completely clear.

Discussion

Superglue is a commonly used adhesive compound that is found in many households. Various nonprescription eyedrops are packaged in similarly sized and shaped bottles that can potentially be confused with Superglue *(Figure).*

As physicians we should be aware of potential environmental hazards to our patients, and if we do occasionally recommend eyedrops that can be purchased over the counter we should emphasize that the proper place for these drops is the medicine cabinet.

It is also our responsibility to alert the manufacturers of this possible confusion with their product so that a simple change in packaging (i.e., using a red label) may be considered to prevent further accidents of this type.

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CONTRAINDICATIONS: ASPIRIN: Allergic or idiosyncratic reactions to aspirin or related compounds. MEPROBAMATE: Acute intermittent porphyria; allergic or idiosyncratic reactions to meprobamate or related compounds, e.g. carisoprodol, mebutamate, or carbromal.

WARNINGS: ASPIRIN: Use salicylates with extreme caution in patients with peptic ulcer, asthma, coagulation abnormalities, hypoprothrombinemia, vitamin K deficiency, or those on anticoagulants. In rare instances, aspirin in persons allergic to salicylates may result in life-threatening allergic episodes.

MEPROBAMATE: DRUG DEPENDENCE: Physical and psychological dependence, and abuse have occurred. Chronic intoxication from prolonged ingestion of, usually, greater than recommended doses is manifested by ataxia, slurred speech, and vertigo. Therefore, carefully supervise dose and amounts prescribed and avoid prolonged use, especially in alcoholics and others with known propensity for taking excessive quantities of drugs. Sudden withdrawal after prolonged and excessive use may precipitate recurrence of preexisting symptoms, e.g. anxiety, anorexia, or insomnia, or withdrawal reactions, e.g., vomiting, ataxia, tremors, muscle twitching, confusional states, hallucinosis, and, rarely, convulsive seizures. Such seizures are more likely in persons with CNS damage or preexistent or latent convulsive disorders. Onset of withdrawal symptoms occurs usually within 12 to 48 hours after discontinuation; symptoms usually cease within next 12-to-48-hour period. When excessive dosage has continued for weeks or months, reduce dosage gradually over 1 to 2 weeks rather than stop abruptly. Alternatively, a short-acting barbiturate may be substituted, then gradually withdrawn.

POTENTIALLY HAZARDOUS TASKS: Warn patients meprobamate may impair mental or physical abilities required for potentially hazardous tasks, e.g., driving or operating machinery.

ADDITIVE EFFECTS: Since CNS-suppressant effects of meprobamate and alcohol or meprobamate and other psychotropic drugs may be additive, exercise caution with patients taking more than one of these agents simultaneously.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during first trimester of pregnancy, has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of childbearing potential may be pregnant at time of institution of therapy should be considered. Advise patients if they become pregnant during therapy or intend to become pregnant to communicate with their physicians about desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk at lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breastfeeding patients, consider the drug's higher concentrations in breast milk as compared to maternal plasma levels.

USAGE IN CHILDREN: Keep preparations with aspirin out of reach of children. Equagesic®-M is not recommended for patients 12 years of age and under.

PRECAUTIONS: ASPIRIN: Salicylates antagonize uricosuric activity of probenecid and sulfinpyrazone. Salicylates are reported to enhance hypoglycemic effect of sulfonylurea antidiabetics.

MEPROBAMATE: Use lowest effective dose, particularly in elderly and or debilitated, to preclude over-sedation. Meprobamate is metabolized in the liver and excreted by the kidney; to avoid excess accumulation exercise caution in its use in patients with compromised liver or kidney function. Meprobamate occasionally may precipitate seizures in epileptic patients. It should be prescribed cautiously and in small quantities to patients with suicidal tendencies.

ADVERSE REACTIONS: ASPIRIN: May cause epigastric discomfort, nausea, and vomiting. Hypersensitivity reactions, including urticaria, angioneurotic edema, purpura, asthma, and anaphylaxis may rarely occur. Patients receiving large doses of salicylates may develop tinnitus.

MEPROBAMATE: CNS: Drowsiness, ataxia, dizziness, slurred speech, headache, vertigo, weakness, paresthesias, impairment of visual accommodation, euphoria, overstimulation, paradoxical excitement, fast EEG activity.

GI: Nausea, vomiting, diarrhea.

CARDIOVASCULAR: Palpitation, tachycardia, various forms of arrhythmia, transient ECG changes, syncope, hypotensive crisis.

ALLERGIC OR IDIOSYNCRATIC: Milder reactions are characterized by itchy, urticarial, or erythematous maculopapular rash, generalized or confined to the groin. Other reactions include leukopenia, acute nonthrombocytopenic purpura, petechiae, ecchymoses, eosinophilia, peripheral edema, adenopathy, fever, fixed drug eruption with cross-reaction to carisoprodol, and cross-sensitivity between meprobamate/mebutamate and meprobamate/carbromal. Rare, more severe hypersensitivity reactions include hyperpyrexia, chills, angioneurotic edema, bronchospasm, oliguria, and anuria. Also, anaphylaxis, exfoliative dermatitis, stomatitis, and proctitis. Stevens-Johnson syndrome and bullous dermatitis have occurred.

HEMATOLOGIC (SEE ALSO "ALLERGIC OR IDIOSYNCRATIC"): Agranulocytosis, aplastic anemia have been reported, although no causal relationship has been established, and thrombocytopenic purpura.

OTHER: Exacerbation of porphyric symptoms.

DOSAGE AND ADMINISTRATION: Usual dose is one or two tablets, 3 to 4 times daily as needed for relief of pain when tension or anxiety is present. Not recommended for patients 12 years of age and under.

OVERDOSAGE: Treatment is essentially symptomatic and supportive. Any drug remaining in the stomach should be removed. Induction of vomiting or gastric lavage may be indicated. Activated charcoal may reduce absorption of both aspirin and meprobamate. Aspirin overdosage produces usual symptoms and signs of salicylate intoxication. Observation and treatment should include management of hyperthermia, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions. Suicidal attempts with meprobamate have resulted in drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse. Some suicidal attempts have been fatal. The following data, reported in the literature and from other sources, are not expected to correlate with each case (considering factors such as individual susceptibility and length of time from ingestion to treatment), but represent usual ranges reported. Acute simple overdose (meprobamate alone): Death has been reported with ingestion of as little as 12 gram meprobamate and survival with as much as 40 gram.

BLOOD LEVELS:

0.5-2.0 mg percent represents usual blood-level range after therapeutic doses. The level may occasionally be as high as 3.0 mg percent.

3-10 mg percent usually corresponds to findings of mild-to-moderate symptoms of overdosage, such as stupor or light coma.

10-20 mg percent usually corresponds to deeper coma, requiring more intensive treatment. Some fatalities occur.

At levels greater than 20 mg percent, more fatalities than survivals can be expected.

Acute combined overdose (meprobamate with other psychotropic drugs or alcohol): Since effects can be additive, history of ingestion of a low dose of meprobamate plus any of these compounds (or of a relatively low blood or tissue level) cannot be used as a prognostic indicator.

In cases of excessive doses, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Any drug remaining in stomach should be removed and symptomatic treatment given. Should respiration or blood pressure become compromised, respiratory assistance, CNS stimulants, and pressor agents should be administered cautiously as indicated. Diuresis, osmotic (mannitol) diuresis, peritoneal dialysis, and hemodialysis have been used successfully in removing both aspirin and meprobamate. Alkalinization of the urine increases excretion of salicylates. Careful monitoring of urinary output is necessary, and caution should be taken to avoid overhydration.

Relapse and death, after initial recovery, have been attributed to incomplete gastric emptying and delayed absorption.

HOW SUPPLIED: Bottles of 50 scored tablets

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Efficiency Studies: Aspiration, Chest Injury and Prone CPR

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JAMES BENZ, M.D.[2]
Indianapolis

Abstract

Chest injuries occur often during manual CPR. Cadaver studies were done using controlled increasing forces to reach a 5.6 cm chest deflection with no detectable injury. Initial stairstep compressions by CPR teams have reduced injuries.

A one patient study of prone chest compression failed to provide adequate ventilation or circulation.

ASPIRATION and iatrogenic trauma during cardiopulmonary resuscitation (CPR) are common additions[2,5] to the original morbidity, and sometimes they are severe enough to be the cause of death.

Aspiration

The timing of the tracheal soiling is not always known but all CPR patients should be considered candidates for aspiration since emesis or regurgitation may be a part of the initial crisis. Additional risk occurs because the external force of CPR increases intraabdominal pressure, which may displace gastric contents into the pharynx.

Efforts to reduce aspiration may include:

- positioning the mouth lower than the glottis,
- protecting the trachea with a cuffed endotracheal tube,
- use of esophageal obturator airway.[1]

Since the trachea angles 15° posteriorly, only extreme head-down position in the supine position would prevent flow of liquids into the trachea. The prone position provides effective drainage of fluids away from the airway by gravity and keeps the tongue anterior, but the prone position prevents standard closed-chest CPR practices.

Ventilation and Circulation During Prone CPR

The respiratory and circulatory effects of prone CPR were evaluated by using back pressure maneuver, but not the arm lift as described by Nielsen,[4] on a 50-year-old 70-kilo patient after all other resuscitative efforts had been abandoned. A femoral artery cannula and endotracheal tube were in place. The endotracheal tube drained straw-colored fluid when the patient was placed in the prone position. No air flow was detected with a Wright respirometer during the prone pressure efforts. The arterial line tracing demonstrated a narrow notched wave with a peak systolic pressure of 30 torr.

CPR Chest Injuries

Postmortem examinations following CPR, even when conducted by those trained in basic CPR techniques, reveals a high incidence (up to 75%) of chest wall injury; occasionally, other injuries also are noted, including pulmonary contusions and punctures and trauma to the heart, liver and spleen. In some, the induced injury alone was severe enough to prevent resuscitation.

Many of these injuries are the result of improper location and excessive force of manual compression of the chest wall. It has been suggested the incidence and degree of injury can be reduced by emphasizing the importance of developing an initial feel for the resiliency of the subject's chest, by starting gently and gradually increasing the force of compressions. This procedure allows the chest to develop compliance and the operator to build up to the proper stroke depth rather than to overshoot with the initial compression stroke and produce injury.

Cadaver Studies

Eight adult non-resuscitated cadavers were studied to evaluate the effects of preliminary chest wall conditioning. The age range was 24 to 85 years and weight ranged from 40 to 75 kilos. Autopsies were performed on three of the eight following the study. A series of 10 progressively stronger manual strokes was used on two cadavers with rigor mortis until a 6 cm chest wall deflection was accomplished; both had emphasematous type chests. No audible or tactile chest injury was noted. At post mortem, no chest wall injury was found.

The Travenol mechanical resuscitator (HLR) was used on six cadavers with rigor mortis. In three cases the initial force was 40 kilograms, which was gradually increased to the amount required to develop a 5.6 cm stroke. The

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chest was evaluated for audible and tactile changes during these maneuvers. In only one was a change noted; a sternal click was detected on the subject that received the initial 70 kilograms force with a 5.6 cm initial displacement. No autopsy was done on this patient.

Discussion

The perfect technique for preventing aspiration remains unanswered. Good drainage occurs in the prone position, but compression of the chest from the posterior failed to generate arterial pressures adequate to maintain perfusion or sufficient airflow rates to record on a Wright respirometer.

It appears that anterior compression of the chest is the method of choice in developing circulation during CPR; however, the injuries from over zealous chest compression need to be reduced. Our study suggests that chest injury may be reduced by starting gently and increasing the compression in a stairstep fashion until circulation is developed.

McDaniel[3] reported (Conference on Citizen CPR National Health Center Baylor College of Medicine, Houston, Texas, 1980) that the Contra Costa County Fire District used the initial chest conditioning by stairstep compressions for one year with a reduction in chest wall trauma from CPR.

The Harrigan Cardiac Resuscitator is a pressure-indicating resilient compression pad to be placed between the hand and sternum. Initial reports indicate that it helps prevent injury by providing visual evidence of the external force needed to maintain mean arterial pressures.

It is rare that any of the mechanical devices are available at the onset of CPR; therefore, the physical skills of maintaining good ventilation and safe, effective circulation are brought to the extreme test during the first tense moments of the life-saving endeavors. If this tension is controlled by moderated initial physical exertion against the chest, it may save many iatrogenic injuries.

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Notes from

The Royal College of Surgeons of England

AUSTIN L. GARDNER, M.D.
Indianapolis

"An Inquiry Into the Decay of Teeth" by B. Cohen, Nuffield, Professor of Dental Science at the Royal College of Surgeons of England, demonstrates the extreme versatility of John Hunter. In 1771, Hunter wrote, "The most common disease to which the teeth are exposed is such a decay as would appear to deserve the name of mortification." He stated, "It almost always begins . . . as an opaque white spot."

Dr. Cohen evaluated caries visible in petrified records plus or minus 40,000 years old and also decay in mummies of bygone Egyptian dynasties. He even evaluated the caries in Anne Mowbray, the child bride of one of the ill-fated princes assassinated in the Tower of London.

Dr. Cohen's research in monkeys is based on observations made at St. Mary's Hospital during the investigations by Alexander Fleming. J. Kilian Clarke examined "fifty teeth showing the earliest signs of caries and found a hitherto undescribed organism which he named *Streptococcus mutans,* always present." He categorized caries as an infectious disease. Research that was suggested in the 1903 *British Dental Journal* was instituted by Dr. Cohen at Downe, Charles Darwin's estate, and consisted of the inoculation of monkeys with a protein antigen purified from the cell wall of *S. mutans.* Young monkeys subjected to a severe challenge of a high sucrose caries-promoting diet can be afforded substantial protection. This seemed to justify the initiation of tests designed to determine its suitability for administration in humans. John Hunter stated in 1771, "We have not yet found any means of preventing this disease or of curing it; all that can be done is to fill the hole with lead, which prevents the pain, and retards the decay." Dr. Cohen claims that perhaps some progress has been made.

* * *

"An assessment of Ultrasound Scanning and the Recognition of Colorectal Liver Metastases was carried out by G. Lamb and I. Taylor of Liverpool. A prospective study of 100 patients by 99m Tc-sulphur colloid scan and ultrasound scan resulted in a high degree of accuracy. The alkaline phosphatase was the only enzyme whose serum activity was consistently elevated.

* * *

A technique of percutaneous transhepatic drainage for inoperable obstructive jaundice by Drs. Baxter-Smith, Temple, and Howarth of Birmingham resulted in relief of intractable pruritus. A polyethylene catheter was left in place. Six patients were treated and all left the hospital within a week. Two of the six patients were jaundice-free at nine and 11 months after the procedure. The tube can be changed using a Seldinger technique if irrigation fails.

* * *

A review of the treatment of haemorrhoids was undertaken by Brian D. Hancock of Manchester. Haemorrhoidectomy, dilation "Lord's Procedure," injections, cryosurgery, rubber band ligation and dietary advice were considered. A trend toward recommending a high residue diet was noted. At St. Mark's Hospital in London, 75% of the patients were managed by injection, 20% have rubber band ligation, and only 5% were admitted for haemorrhoidectomy.

* * *

An interesting article on the use of the flexible gastroscope for sclerotherapy in oesophageal varices was presented by Drs. Kirkham and Quayle of St. James Hospital, Balham, London. Thirty-four consecutive patients were studied between 1976 and 1981.

Of the 34 patients, complete irradication was noted in 12, almost complete in eight, partial irradication in six, and failure in eight. Only 12 patients had been followed for more than two years, however.

* * *

Other articles on enterocolitis, the dilation of ureteral strictures with an endoscopically placed guide in the urethra, sutureless skin closure of amputation stumps, and the review of the history of microscopy round out a very interesting issue of the journal.

The information in this review is based on the November 1982 issue of the Annals of the Royal College of Surgeons of England.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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State Health Commissioner

New information from
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Indiana State Board of Health
1330 W. Michigan St.,
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

Forwarding Herpesvirus Specimens for Testing

The Virology Laboratory of the Indiana State Board of Health receives varied specimens with requests for herpes simplex (herpesvirus) testing. Specimens may come from physicians' offices, but more frequently are forwarded from hospital or independent clinical laboratories.

The herpes simplex antibody may be detected in serum, most significantly as a seroconversion from negative to positive or as a fourfold or greater elevation of antibody between acute and convalescent specimens. Detection of antibody in a single sample of serum is of little diagnostic value since the majority of adults have antibodies in their serum. Sera of newborns may react with herpes antigens as a reflection of maternal antibody which declines several months after birth. If the infant is infected and actively producing antiserum, the herpes titer will remain elevated.

Herpes simplex complement fixing antigen is available commercially and is included in several antigenic test "batteries" utilized in the State Board of Health laboratory: 1) in a "CNS" (Central Nervous System) battery along with antigens of the arboviruses (Eastern, Western, St. Louis, California encephalitis), lymphocytic choriomeningitis, polioviruses (types 1, 2, 3), and mumpsvirus; 2) in an "exanthem" battery along with varicella, measles, rubella, typhus fever and Rocky Mountain spotted fever antigens; 3) in the so-called "TORCH" battery with toxoplasma, rubella and cytomegalovirus; and 4) with the antigens of varicella and cytomegalovirus in testing sera of organ transplant and other immunosuppressed patients to discern primary and reactivated infections. The latter two viruses, like herpes, are known to remain latent after a primary infection and to be reactivated under certain conditions. While most viral antigens detect specific antibody, it should be noted that there may be cross-reactivity between herpes simplex and varicella-zoster antigens.

Since herpes simplex infections are not manifested in seasonal variation nor epidemic form, relatively few specimens are submitted to the ISBH laboratory. However, in fiscal year 1979-80, serologic tests indicated herpes infections in 16 of 29 seroconversions in the CNS category, and in 20 of 98 cases positive to a viral exanthem. In addition, there were 35 cases of genital infection which seroconverted to herpes simplex, and another six cases from which the virus was cultured.

Herpes simplex virus may be found in specimens from the eye, skin lesions, oral and genital mucous membranes, central nervous system, and other sites in a generalized infection. The virus can be cultured in several living host systems such as mice, embryonated egg, and tissue culture. Tissue cultures are the most convenient and several primary and established cells may be utilized. This laboratory has alternately used H.Ep.-2 continuous passage cells, the WI-38 human diploid fibroblasts, continuous passage VERO cells of monkey kidney origin, and human embryonic kidney cells. Cell destruction in these tissue cultures within two or three days after specimen inoculation is presumptive evidence of the herpes simplex virus. Confirmation is made by neutralization of the virus with specific anti-herpes serum.

Isolation of the herpes simplex virus, especially from throat washings, may or may not be indicative of current active infection since many individuals are carriers of the virus, either as a latent chronic infection or commensally.

In recent studies, the herpes simplex virus has been delineated into type 1 and type 2 by antigenic components. Type 1 has been implicated in herpes infections "above the waist" and type 2 "below the waist." However, both types have been recovered from varied infection sites and intermediate herpes types have been identified. The ISBH Virology Laboratory does not differentiate types 1 and 2 herpes simplex virus. However, by special request, a culture may be referred to the Centers for Disease Control (CDC) laboratories in Atlanta for typing.

For herpesvirus serology, clotted blood specimens, or preferably the separated serum, may be sent in suitable mailers without refrigeration. For herpesvirus culture, proper transport of specimens is a critical consideration when sending specimens to a distant laboratory. Herpesvirus, like most viruses, does not survive at ambient temperatures, and the virus will not withstand drying. Swab specimens must remain moist, preferably with a stabilizing proteinaceous broth. If specimens can be shipped to the laboratory within 24 hours of collection, they may be sent refrigerated with "canned ice" in a heavily insulated box. With a longer delay, specimens should be stored frozen, then shipped frozen with dry ice.

For further information contact: Charles D. Griffin, director, Virology Laboratory, Indiana State Board of Health, Indianapolis—317/633-0241.

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AUXILIARY REPORT

Karen (Mrs. Robert M.) Schleinkofer
President, ISMA Auxiliary

A special invitation is extended to all Indiana State Medical Association Auxiliary members and their spouses to travel "Up, Up and Away" to the annual Auxiliary convention and meeting of the House of Delegates.

The meeting will be held April 19, 20 and 21 at the Marriott Inn in Fort Wayne.

One of the highlights will be the North Central Regional Vice President of the AMA Auxiliary, Mary Kay McPhee, who will be giving the keynote speech for the House of Delegates Wednesday morning.

Vivian Priddy and Charlene Spencer, co-chairmen of the House of Delegates, have planned an exciting showing by Halina Imports, from which 20% of the sales will be channeled to AMA/ERF. Many surprises are planned in addition to the formal agenda which appears at right.

Send in your reservations now to come "Up, Up and Away" to the annual ISMA Auxiliary convention.

A reminder: To find the Fort Wayne Marriott Inn, take Exit 112-A from Interstate 69.

Agenda
39th Annual House of Delegates
Indiana State Medical Association Auxiliary

April 19, 20 & 21, 1983
THE FORT WAYNE MARRIOTT INN
I-69 at Exit 112-A

Tuesday, April 19

Halina Imports will be open from 1:00-4:00 P.M.
to benefit AMA/ERF

10:00 a.m.-6:00 p.m. ..... Registration
1:00 p.m. ..... Finance Committee Meeting
1:30 p.m. ..... Executive Committee Meeting
2:00 p.m. ..... Joint Board Meeting-Outgoing & Incoming
3:00 p.m. ..... New 1983-84 Board Meeting
6:00 p.m. ..... Past Presidents Dinner
Pine Valley Country Club

Wednesday, April 20

Halina Imports will be open from 8:30 A.M.-6:30 P.M.

7:30 a.m.-5:30 p.m. ..... Registration
7:30-8:30 a.m. ..... Continental Breakfast
8:45 a.m. ..... Formal Opening, House of Delegates Meeting
9:00 a.m. ..... Memorial Service
9:30 a.m. ..... Keynote Address: Mrs. William R. McPhee (Mary Kay)
North Central Regional Vice President, AMA-A
Acceptance of AMA/ERF Contribution
Central and Southern Area Reports
12:30 p.m. ..... Recess
1:00 p.m. ..... Champagne Luncheon
Fashion Show, compliments of Hudson's
2:30 p.m. ..... Afternoon at leisure
6:00 p.m. ..... Reception-Cash Bar
6:45 p.m. ..... Banquet and AMA/ERF Auction
(Spouses welcome and urged to attend)

Thursday, April 21

Halina Imports will be open from 8:30 A.M.-3:30 P.M.

7:00-11:00 a.m. ..... Registration
7:30-8:30 a.m. ..... Continental Breakfast
8:45 a.m. ..... House of Delegates Reconvenes
Northern Area Reports
Business of the House of Delegates
12:00 Noon ..... Recess
(Late check-out time has been pre-arranged)
1:00 p.m. ..... Luncheon and Installation Ceremony
Adjournment of the House of Delegates

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J-9043-4 July 1981

Bactrim™ attacks th
(trimethoprim and sulfamethoxazole/Roche)
in acute exacerbation



Bactrim concentrates in serum and penetrates sputum[1-3]

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najor pathogens
f chronic bronchitis*

Bactrim clears sputum of susceptible bacteria

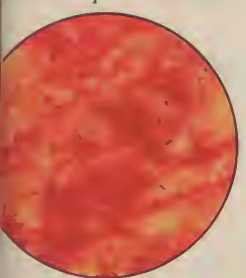
In sputum cultures from patients with acute exacerbations of chronic bronchitis, *H. influenzae* and *S. pneumoniae* are isolated more often than any other pathogens.[4,5] One study of transtracheal aspirates from 76 patients with acute exacerbations found that 80% of the isolates were of these two pathogens.[5]

Bactrim is effective *in vitro* against most strains of both *S. pneumoniae* and *H. influenzae*—even ampicillin-resistant strains. And in acute exacerbations of chronic bronchitis involving these two pathogens, sputum cultures taken seven days after a two-week course of therapy showed that Bactrim eradicated these bacteria in 91% (50 of 55) of the patients treated.[6]

ks *H. influenzae*—even
ɔicillin-resistant strains



tacks *S. pneumoniae*



Bactrim reduces coughing and sputum production

In three double-blind comparisons with ampicillin *q.i.d.*, Bactrim DS proved equally effective on all clinical parameters.[7-9] Bactrim reduced the frequency and severity of coughing, reduced the amount of sputum produced and cleared the sputum of purulence.

Bactrim has the added advantages of *b.i.d.* dosage convenience and a lower incidence of diarrhea than with ampicillin, and it is useful in patients allergic to penicillins.

Bactrim also proved more effective than tetracyclines in 10 clinical trials involving nearly 700 patients.[10] Overall clinical condition of the patients, changes in sputum purulence, reduction in sputum volume and microbiological clearance of pathogens—all improved more with Bactrim therapy than with tetracyclines. G.I. side effects occurred in only 7% of patients treated with Bactrim compared with 12% of tetracycline-treated patients. (See Adverse Reactions in summary of product information on next page.)

Bactrim is contraindicated in pregnancy at term and nursing mothers, infants under two months of age, documented megaloblastic anemia due to folate deficiency and hypersensitivity.

Bactrim DS. For acute exacerbations of chronic bronchitis in adults* when it offers an advantage over single-agent antibacterials.

References: 1. Hughes DTD, Bye A, Hodder P: *Adv Antimicrob Antineoplastic Chemother 1/2*:1105-1106, 1971. **2.** Jordan GW *et al: Can Med Assoc J 112*:91S-95S, Jun 14, 1975. **3.** Beck H, Pechere JC: *Prog Antimicrob Anticancer Chemother 1*:663-667, 1969. **4.** Quintiliani R: Microbiological and therapeutic considerations in exacerbations of chronic bronchitis, in *Chronic Bronchitis and Its Acute Exacerbations: Current Diagnostic and Therapeutic Concepts;* Princeton Junction, NJ, Communications Media for Education, Inc., 1980, pp. 9-12. **5.** Schreiner A *et al: Infection* 6(2):54-56, 1978. **6.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **7.** Chodosh S: Treatment of acute exacerbations of chronic bronchitis: results of a double-blind crossover clinical trial, in *Chronic Bronchitis and Its Acute Exacerbations: Current Diagnostic and Therapeutic Concepts. Op. cit.*, pp. 15-16. **8.** Chervinsky P: Double-blind clinical comparisons between trimethoprim-sulfamethoxazole (Bactrim™) and ampicillin in the treatment of bronchitic exacerbations. *Ibid.*, pp. 17-18. **9.** Dulfano MJ: Trimethoprim-sulfamethoxazole vs. ampicillin in the treatment of exacerbations of chronic bronchitis. *Ibid.*, pp. 19-20. **10.** Medici TC: Trimethoprim-sulfamethoxazole (Bactrim™) in treating acute exacerbations of chronic bronchitis: summary of European clinical experience. *Ibid.*, pp. 13-14.

Economical b.i.d.

Bactrim™ DS

(160 mg trimethoprim and 800 mg sulfamethoxazole/Roche)

*Due to susceptible organisms. **Please see next page for summary of product information.**

Bactrim™

(trimethoprim and sulfamethoxazole/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea, pseudomembranous colitis and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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SPEAKER, HOUSE OF DELEGATES
INDIANA STATE MEDICAL ASSOCIATION

TO: MEMBERS OF THE INDIANA STATE MEDICAL ASSOCIATION

The following report addresses Resolutions 82-17 and 82-18 concerning proposed revisions to the JCAH Manual scheduled for implementation on January 1, 1984.

TITLE: THE PHYSICIAN AND THE JOINT COMMISSION ON THE ACCREDITATION OF HOSPITALS (JCAH)

I wish to address the growing concern throughout our state membership toward the proposed revisions in the JCAH Accreditation Manual for hospitals. These revisions have to do in part with the definition of the hospital medical staff, with specific reference to the limited licensed practitioner. The section of the proposed revisions of the JCAH Standards in question would in effect retire the traditional concept of a "Medical Staff" in favor of the newly proposed "Organized Staff." A summary of the proposed revisions to the JCAH Medical Staff Standards are the following:

(1) In the section regarding Survey Eligibility Criteria, under the sixth bullet of the new version, the term "Medical Staff" has been eliminated and substituted with "Organized Staff".

(2) In the section regarding Survey Eligibility Criteria, under the ninth bullet of the new version, any member of the Organized Staff has the authority to admit a patient to the hospital, eliminating the requirement under the old version that only a member of the Medical Staff (defined as physicians and dentists) has the authority to admit.

(3) In the section regarding Survey Eligibility Criteria under the thirteenth bullet of the new version, the requirement has been eliminated which stated that each patient's general medical condition will be the responsibility of a physician member of the Medical Staff.

(4) In the chapter titled, "Organized Staff", on page 1, section 1,a, Organized Staff is defined as being composed of licensed physicians and other individuals who are "licensed for independent provision of patient care services." This eliminates the requirement under the old Medical Staff chapter, on page 93, lines 11-13, that Medical Staff membership shall be limited to individuals who are fully licensed to practice medicine and to licensed dentists.

(5) In addition, the new "Organized Staff" chapter deletes all references to board certification in the delineation of privileges, deletes all references to the supervision and scope of practice of oral surgeons and podiatrists, and permits any practitioner on the Organized Staff to perform the admitting history and physical examination.

Recognizing the fact that physicians in some hospitals are presently being asked to incorporate these proposed revisions into their current Bylaws, the leadership of ISMA wishes to advise that to make such Bylaw changes at this time would be premature. We would further like to share with the physicians of each hospital staff the following background information.

The JCAH was founded in 1951 and now consists of five corporate member organizations inclusive of the AMA, the American College of Physicians, The American College of Surgeons, The American Dental Association and The American Hospital Association. The JCAH Board of Commissioners is composed of twenty-two members, seven of which represent the AMA, and are for 1983: William Y. Rail, M.D., Chairman of the AMA Commissioners; William S. Hotchkiss, M.D.; Robert T. Kelly, M.D.; W. J. Lewis, M.D.; Alan R. Nelson, M.D.; Hubert A. Ritter, M.D.; and James S. Todd, M.D.

The primary purpose of the accreditation program of the JCAH is to insure quality care in accredited hospitals. Hospitals (in assuring that each patient receives an appropriate level of care) have the responsibility of establishing credentialing mechanisms that will assure that each individual physician with clinical privileges has demonstrated current competence, judgment and character necessary to function competently within the scope of delineated privileges. This is in keeping with the policy position adopted by the 1977 Interim Meeting of the AMA House of Delegates, which basically provided that each hospital should determine what catagories or licensed health care practitioners should be granted clinical privileges in accordance with applicable state law and the needs of the community. This policy statement further specified that regardless of which practitioners were granted clinical privileges all patients admitted to hospitals should receive the same standard of quality care and services.

Subsequent to this policy statement, the AMA House of Delegates at the 1980 Annual Meeting adopted Report MM of the Board of Trustees, which recommended in part that the JCAH standards be rewritten to eliminate significant portions that are ambiguous and subject either to misinterpretation or various interpretations by the JCAH surveyors in hospitals, and to allow more flexibility in the implementation of the standards by the individual hospital and medical staff.

The JCAH is currently a defendant in four anti-trust lawsuits alleging that the existing standards exclude licensed non-physician professionals who are authorized under state law to provide services in acute care general hospitals or in other facilities eligible for JCAH accreditation. The Commission's parent organizations are not only responsible for the cost of litigation, but could also be held liable collectively and individually for damages if the plaintiffs are successful.

In the Medical Staff Section of the proposed Manual for Accreditation, the revised "Organized Staff" would include all licensed, non-M.D. practitioners such as: clinical psychologists, podiatrists, nurse midwives, nurse anesthesists, and chiropractic physicians, to name a few. These proposed revisions in the current draft of the JCAH Accreditation Manual are primarily directed toward protecting the JCAH from anti-trust litigation.

The current draft has been sent for review to more than 3,000 individuals, including members of the AMA House of Delegates, state medical associations and national medical specialists societies to solicit comments on the proposed revisions. The JCAH Commissioners are due to take final action on the "Organized Staff" section at their April 23rd meeting. However, the AMA Board of Trustees has filed a request to the JCAH Board of Commissioners asking postponement of action on the "Organized Staff" section of the proposed revisions of the JCAH Standards, and to change the wording in one part of the revision to assure physicians a majority on hospital executive committees. The specific recommendation of the AMA Board of Trustees to the Commissioners of the JCAH asked that final action on the revisions to the Medical Staff Standards be deferred until after the 1983 Annual Meeting of the AMA House of Delegates.

It should be further understood that if such revisions to the JCAH Accreditation Manual for Hospitals are finalized, they will not take effect until January of 1984. Subsequent to this, hospitals will have an additional year in which to be in compliance.

It should also be realized that the proposed standards will, in effect, weaken the definition of "physician," thus making the physician staff a sub-unit of the overall hospital professional staff structure. The revisions would in fact eliminate any requirement that there be physician involvement in the determination of hospital medical policy. At the same time, it opens the arena of monitoring professional competence to several participants and leaving several questions unanswered as to the mechanism by which credentialing and monitoring are to be accomplished. Certainly one of the considerations will be to place physicians in the responsible role of monitoring, not only fully-licensed colleagues, but all limited licensed practitioners as well. Use of hospital employed nursing staff, as well as lay personnel, to accomplish monitoring is a recognized alternative that may eventually emerge. All such monitoring efforts do not necessarily affect the patient in a cost effective manner, but may in fact further drive up the cost of health care delivery to those patients seeking services within the hospitals from limited licensed practitioners. Certainly the Joint Commission, on behalf of its five parent organizations, will ultimately seek the best solution for assuring quality care within our hospitals as an overall accrediting objective. Nonetheless, their current stance is primarily motivated by the desire to avoid protracted litigation. The original standards were written to protect the patient and to assure excellence of medical care. I am sure that it is the contention of most physicians that if the JCAH is to survive, it must ardently adhere to this original premise.

Your leadership of ISMA suggests that it would be in the best interest of our membership if deliberation would occur within each hospital staff concerning the proposed revisions in the Accreditation Manual for Hospitals by the JCAH, and that appropriate responses be made known to the AMA Commission members of the JCAH prior to the April 23rd meeting of the Commission, as well as the Annual Meeting of the AMA in June of 1983. It is also our intent to encourage each hospital staff to seek appropriate counseling and legal advice before changing substantially the status of physicians in the staff structure of their respective hospitals.

I'm further pleased to advise you that ISMA is drafting a resolution to the AMA for the annual meeting in June 1983 expressing its concern for the proposed revisions dealing with the status of medical staffs and hospitals.

Lawrence E. Allen

Lawrence E. Allen, M.D.
Speaker
ISMA House of Delegates

CME QUIZ

Impotence

CONTINUED FROM PAGES 251-254

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. The incidence of impotence among American males is approximately:
   a. 2%
   b. 5%
   c. 10%
   d. 20%

2. All of the following are commonly associated with the development of organic impotence except:
   a. Inguinal herniorrhaphy
   b. Radical prostatectomy
   c. Diabetes mellitus
   d. Peyronie's disease

3. Psychogenic problems are now thought to account for about which percentage of erectile failure:
   a. 90%
   b. 75%
   c. 50%
   d. 10%

4. Of the following medications the one most helpful in augmenting waning erectile function in the aging male is:
   a. Testosterone
   b. Peritrate
   c. Aldomet
   d. Inderal

5. The most useful test in distinguishing between psychogenic and organic impotence is:
   a. MMPI (Minnesota Multiphasic Personality Inventory)
   b. Doppler studies of penile blood flow
   c. Serum testosterone level
   d. Nocturnal penile tumescence monitoring

6. All of the following are characteristic of psychogenic impotence except:
   a. Progressive deterioration of erectile turgor
   b. Presence of erections upon waking up in the morning
   c. Poor function with spouse, good function with significant other
   d. Unexplained abrupt cessation of erectile ability

7. Penile erection results from the:
   a. Shunting of blood into venous sinusoids of the corpora cavernosa
   b. Contraction of the bulbocavernosus and ischiocavernosus muscles
   c. Mechanical closure of bladder neck
   d. Increase of peripheral testosterone levels with sexual arousal

8. Hyperprolactinemia in men is characterized by all of the following except:
   a. Prolactin inhibitors can usually restore normal sexual functioning
   b. It results in decreased sexual aggressiveness
   c. It is associated with a high incidence of pituitary tumors
   d. It is relatively common

9. In patients with implanted penile prostheses all of the following are true except:
   a. Penile sensation is usually normal
   b. Ejaculation rarely occurs
   c. Voiding is unaffected
   d. The percentage of patient-partner satisfaction is very high

10. Select the false statement regarding penile prostheses:
    a. Advanced age is a contraindication to implantation
    b. Patients with psychogenic impotence may be candidates for implantation
    c. The average age at the time of implantation in most series is the late 40s
    d. A few patients have fathered children with the prosthesis in place

March CME Quiz Answers

Following are the answers to the CME quiz that appeared in the March 1983 issue of THE JOURNAL: "Antihypertensive Therapy: A Mechanistic Approach," by Myron H. Weinberger, M.D.

1. b	6. c
2. b	7. a
3. d	8. c
4. a	9. b
5. d	10. d

Answer sheet for Quiz: (Impotence . . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for this month's quiz, send your completed, signed application before May 10, 1983 to the address appearing at the top of this page.

FUTURE FILE

Indiana University CME

For the Primary Care Physician

April 14—The Elderly Patient: Critical Issues and Medical Care, Reid Memorial Hospital—Richmond

April 20—Dermatology Update

April 20—Arthur B. Richter Conference in Child Psychiatry and Child Development

April 23—Acute and Chronic Disorders of the Spine—LaPorte

May 12—Office Management of the Patient with Arthritis

May 24-26—Family Practice Review, Part I, will be held at Midway Motor Lodge and will address topics in internal medicine with emphasis on infectious diseases, cardiology, and endocrinology; and pediatrics including neonatalogy, neurology, and other selected areas.

May 25—Perinatal-Neonatal Medicine—Merrillville

June 4—Diabetes Update

June 28-30—Family Practice Review, Part II

For the Specialist

April 18, 19, 20—Two-Dimensional Echo Workshop

April 27-29—Newer Diagnostic Imaging Modalities in Clinical Practice

April 29—Radiation Oncology

June 3, 4—Orbital Dissection

June 4—New Horizons in Diagnosis and Management of Non-Hodgkins Lymphoma

For additional information contact: Indiana University School of Medicine, Division of Continuing Medical Education, 1120 South Drive, Indianapolis, IN 46223—(317) 264-8353.

Spinal Manipulation

"Current Concepts and Rationale for Spinal Manipulation" is the subject of an all-day CME program at the Red Carpet Hotel and Convention Center in Milwaukee on June 11. The program is directed to physical therapists and physicians. The instructor will be Stanley Paris, director of the Atlanta Back Clinic, who has 20 years experience in physiotherapy of the back. The tuition is $49. Write or phone Mary Jensen, P.O. Box 133-L, Franksville, Wisc. 53126—(414) 886-0116.

Laser Medicine

The Fifth International Congress of Laser Medicine and Surgery meets Oct. 7 to 9 in the Westin Hotel, Detroit. Full information may be obtained from Charles B. Slack, Inc., 6900 Grove Road, Thorofare, N.J. 08086.

Sports Medicine Symposium

A Sports Medicine Symposium sponsored by the Fort Wayne Medical Society will be conducted from 8:30 a.m. to 5 p.m., Saturday, April 23, at the IUPUI CM Building, Fort Wayne.

The symposium is designed for high school and collegiate coaches, trainers, and those family physicians, pediatricians, orthopedic surgeons and others who frequently serve as team physicians or care for athletes. Registration is $25 for physicians and $10 for non-physicians.

To register, contact the Fort Wayne Medical Society, 2414 E. State, Suite 300, Fort Wayne 46805.

Indiana AAPS Meeting

The spring meeting of the Indiana Chapter of the Association of American Physicians and Surgeons will be conducted Saturday, April 16, Indianapolis.

Guest speakers will be Kent Masterson Brown, Esq., a constitutional lawyer from Lexington, Ky., and Donald C. Quinlan, M.D., an internist from Chicago. The meeting will be open to all practicing physicians, jurists and spouses.

The panel discussion will begin at 4 p.m. at Laughner's Cafeteria, 4030 U.S. 31 South, Indianapolis, just off I-465. A business meeting at 3 p.m. will precede the panel discussion. Dinner is scheduled for 6 p.m. Reservations are not required.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Ethics Workshop

"Ethical Issues in the Health Professions and the Biomedical Sciences" will be the subject of a workshop sponsored by the Institute of Society, Ethics and the Life Sciences. The workshop will meet from June 19 through 24 on the campus of Vassar College, Poughkeepsie, N.Y. It is aimed at professionals in medicine, social work, nursing, allied health professions and law and health administration.

Contact Eric Feldman, Hastings Center, 360 Broadway, Hastings-on-Hudson, N.Y. 10706—(914) 478-0500.

South Carolina Seminar

A combined CME and vacation seminar for physicians and their families will be conducted Oct. 2-7 at Mariner's Inn on Hilton Head Island, S.C. ISMA members are invited to participate.

The seminar, sponsored by the South Carolina Medical Association, in cooperation with the faculty of the Medical School of the Medical University of South Carolina, is accredited for 28 hours of CME credit. Registration is $320.

Contact J. Charles Johnson, P.O. Box 11188, 3325 Medical Park Road, Columbia, S.C. 29211—(803) 252-6311.

Child Care Conference

The 18th annual Indiana Multidisciplinary Child Care Conference will be held at the Hyatt Regency Hotel in Indianapolis May 18 and 19.

The speakers and subjects will include Drs. Allen Drash and Michael Golden—Diabetes; Dr. Morris Green—Psychosocial Aspects of Child Health; Drs. Gerald M. Loughlin, Howard Eigen and Peter Scott—Pediatric Intensive Care—A Practical Update; Dr. Lyle J. Micheli—Sports Medicine; Drs. Kenneth Sladkin and Donald Dian—A Pelvic Exam Practicum; Dr. Esther Wender—Learning Disorders; and Dr. Paul Wehrle, banquet speaker, "The Role of the American Academy of Pediatrics in Fostering Child Health."

For further information, write Dr. Morris Green, Riley Hospital for Children, 702 Barnhill Drive, Indianapolis 46223.

Look-Alike and Sound-Alike Drug Names

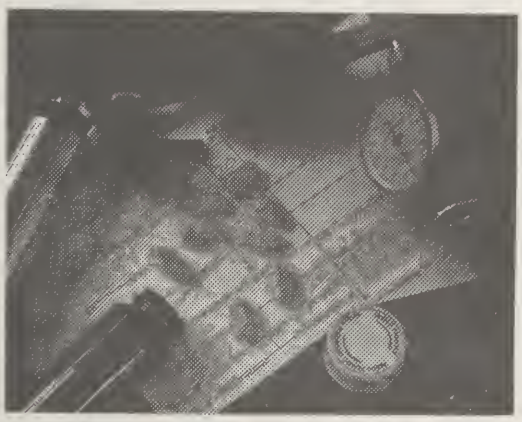
BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	MEBARAL	MELLARIL
Category:	Sedative & Hypnotic	Antipsychotic
Brand Name:	Mebaral, Breon	Mellaril, Sandoz
Generic Name:	Mephobarbital	Thioridazine HCl
Dosage Forms:	Tablets	Tablets, Suspension, Concentrate

	PROTOPAM	PROTAMINE
Category:	Antidote	Heparin antagonist
Brand Name:	Protopam Chloride, Ayerst	Protamine Sulfate, Lilly Protamine Sulfate, Upjohn
Generic Name:	Pralidoxime Chloride	Protamine Sulfate
Dosage Forms:	Tablets, Injection	Injection

GOOD NEWS FOR DOCTORS



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BOOK REVIEWS

John Heysham Gibbon, Jr., 1903-1973

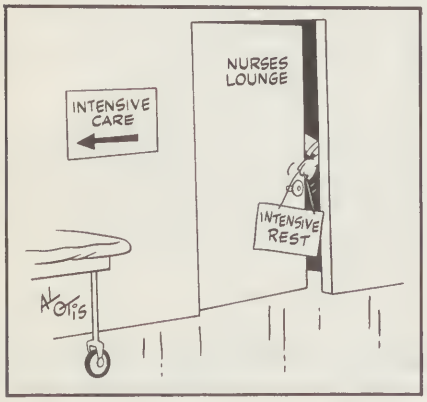
A biographical memoir by Harris B Shumacker, Jr., M.D. A paperbound reprint from Biographical Memoirs, *Vol. 53, published 1982 by the National Academy Press, Washington, D.C.*

John H. Gibbon, Jr. was known and distinguished by the nickname "Jack." He was born in a family with outstanding medical fame and talent and culminated five generations of excellence. When young his very active interests were widespread, extending through poetry, athletics, literature in general, philosophy and religion.

During his education in medical school he was tempted to quit and devote his time to writing. His father, Dr. John Gibbon, Sr., urged him to complete his medical education on the theory that such an education could not possibly mar his writing career if that was really his choice.

Medicine, fortunately, won out. Jack's life was filled with clinical surgery, teaching, pure medical research and clinical research. In view of what is known about circulatory hypertension now, it is most interesting that his first clinical investigation involved observing the effects on hypertensive patients who were "treated" with either sodium or potassium salts.

His universal and consuming interest in the natural wonders of the world was evident in his participation in all elements of medicine. His brilliant pursuit of almost every medical discipline which he encountered did not prevent the focus of his accomplishments to shine brightly into his work on the heart-lung machine.



Of all the persons who contributed to the mastery of the open-heart surgical operation, Jack Gibbon was the pioneer, the basic researcher, and inspiration.

Dr. Shumacker's biography of Dr. John H. Gibbon, Jr. is recommended for reading by physicians who thrill to the achievements of the profession.

Frank B. Ramsey, M.D.
Indianapolis
General Surgery

Handbook of Poisoning

11th edition, by R. H. Dreisbach, M.D., Ph.D. Copyright 1983, Lange Medical Publishers, Los Altos, Calif. 632 pages, softcover, $11.

Handbook of Poisoning, one of the Lange Medical Publications' prestigious, use-oriented publications, is in its 11th edition, publication date 1983. In common with other Lange publications, it has been updated from the 1980 edition. The goal of the book is to present a concise summary of the diagnosis and treatment of poisoning. Certainly the rapidly expanding importance of chemical products in industrial, agricultural, and domestic processes justify this edition. In addition to thorough coverage of agents causing human poisoning, many potentially poisonous agents that have not been important in poisoning humans are included in tabular form. The small, compact volume is divided into general considerations, agricultural poisons, industrial hazards, household hazards, medicinal poisons, and animal and plant hazards. A special appendix covers supplementary oxygen administration equipment.

For easy access, first-aid measures in poisoning are presented on the inside front and back covers. The book contains numerous useful tabulations, as well as line drawings on such topics as emergency tracheostomy, artificial respiration, poisonous marine animals, and the like. Containing 632 pages, including a helpful index, the book is reasonably priced. Its cover is flexible plastic, and it is sturdily bound. I enthusiastically recommend it for all members of the medical and allied professions.

W. D. Snively, Jr., M.D.
Evansville
Internal Medicine

Review of Medical Microbiology

15th edition, by E. Jawetz, J. L. Melnick and E. A. Adelberg. Copyright 1982, Lange Medical Publications, Los Altos, Calif. 553 pages, $17.

Like so many texts from Lange, this is a compendium of information that is "chockerblock full" regarding "The Microbial World." That, incidentally, is also the name of the first chapter and is merely the beginning for there are no less than 40 further chapters.

To get the flavor of the material covered, let me name a few sections at random such as "The Major Groups of Bacteria" (Chapter 3) or "Immunology I and II" (Chapters 12 and 13). Genetics, metabolism, cultivation, diagnostic principles and each microbe from virus to fungus and parasite are covered. As the Preface states: ". . . (it is a) . . . presentation of those aspects of medical microbiology that are of particular significance in the fields of clinical infections and chemotherapy . . ." There are 553 pages proving this contention! Is the reader interested in the Herpes virus for instance? Try Chapter 38—preceded by dissertations on picora-, slow-, paramyxo-, pox- and adenovirus and followed by Chapters on reo-, rota- and oncovirus. Now that is, as they say, coverage in "depth."

Keep this fund of information in your library and use it as occasion arises. Much of microbiology is timely today and this book is well worth possessing.

Rodney A. Mannion, M.D.
LaPorte
Urological Surgery

An updated edition of the consumer drug-use handbook, *About Your Medicines,* has been published by the United States Pharmacopeia. It covers the new drugs, both prescription and OTC. Included is information on proper use, side effects, precautions, interactions, and storage. It also outlines special precautions for those who are pregnant, diabetic, breast feeding or have high blood pressure. The handbook, in easily understood language, may be purchased at pharmacies and other health care facilities.

ANNOUNCING...

The Deaconess Hospital Center for Reconstructive Hip and Knee Surgery

It's an answer to a regional need.

The Deaconess Hospital of Cincinnati is pleased to offer a new regional service for patients undergoing total joint replacement. Initiated in November, 1982, by the Hospital in cooperation with its Medical Staff, a comprehensive program has been developed by the orthopedic surgeons of the staff in conjunction with internists, rheumatologists and other support personnel.

The program includes:

1. Pre-operative evaluation and teaching.
2. A modern, versatile, and completely equipped operative suite that allows maximum flexibility on the part of the surgeon.
3. Careful post-operative monitoring.
4. Coordinated discharge planning.
5. Inclusion of all patients into a computerized data base to facilitate clinical research.



Complicated cases are welcome.

The Orthopedic Staff is highly experienced in all aspects of joint replacement surgery and welcomes complicated cases, including those patients who have had previous surgery.

Any physician can register his patient in the program by contacting The Deaconess Hospital Center for Reconstructive Hip and Knee Surgery.

dh THE DEACONESS HOSPITAL

CENTER FOR RECONSTRUCTIVE HIP AND KNEE SURGERY

311 Straight Street • Cincinnati, OH 45219 559-2597 (local)
1-800-582-2222 (toll free, Ohio) 1-800-543-3344 (toll free, out-of-state)

NEWS NOTES

Search Committee Announced

Dr. Morris Green, Perry W. Lesh professor and chairman of pediatrics and physician-in-chief at the James Whitcomb Riley Hospital for Children, has been named chairman of a search and screen committee to replace Dr. Steven C. Beering as dean of the Indiana University School of Medicine.

Dr. Beering, who has been dean of the school since 1974, will become the ninth president of Purdue University on July 1.

Dr. Green's appointment was made by I.U. President John W. Ryan, who also named him to head an advisory committee to furnish counsel to the search committee from a number of university and outside constituencies.

Those named to serve on the **search and screen committee** are:

- Dr. Douglas A. Triplett, director of the Muncie Center of Medical Education.
- Dr. William Beeson, president-elect of the School of Medicine Alumni Association.
- Ward W. Moore, associate dean for basic medical sciences, professor of physiology and director of the Medical Sciences Program.
- Rodney A. Rhoades, professor and chairman of physiology and chairman of the Basic Science Council.
- Dietrich C. Bauer, professor and chairman of microbiology.
- Henry R. Besch Jr., Showalter professor of pharmacology, chairman of pharmacology and professor of medicine.
- Catherine G. Palmer, professor of medical genetics and president of the medical faculty.
- Dr. Charles Fisch, Distinguished Professor of medicine and director of the Krannert Institute of Cardiology.
- Dr. Hugh C. Hendrie, Albert Eugene Sterne professor of clinical psychiatry and chairman of psychiatry.
- Dr. Robert L. Campbell, Betsey Barton professor of neurosurgery, professor of surgery and director of the Section of Neurosurgery.
- Dr. Eugene C. Klatte, Distinguished Professor of radiology and chairman of radiology.
- William H. Mohr, medical student and former IU student trustee.
- Dr. Patrick J.V. Corcoran, national chairman of the Council on Medical Education, professor emeritus of medicine, and immediate past director of the Evansville Center for Medical Education.
- Michael J. O'Connor, administrative assistant, ex officio.

Those who have been asked to serve on the **advisory committee** are:

- Dr. Paul Siebenmorgen, representing the Indiana State Medical Association.
- Dr. James Gosman and C.W. Pettings, IUPUI Board of Advisers.
- Dr. Edward Steinmetz, St. Vincent Hospital and Health Care Center.
- Dr. Frank Lloyd, Methodist Hospital of Indiana.
- Elizabeth M. Grossman, dean of the IU School of Nursing.
- Dr. Ralph E. McDonald, dean of the IU School of Dentistry.
- Gerald L. Bepko, dean of the IU School of Law-Indianapolis.
- Gary A. Sojka, dean of the College of Arts and Sciences, IU Bloomington.

In naming both committees, Ryan expressed his hope that a new dean of medicine be named by July 1 to ease the transition. The search and screen committee will report their findings to Dr. Glenn W. Irwin Jr., IU vice president for Indianapolis, who will, in turn, report to Ryan.

Patient Satisfaction Growing

Patients' level of satisfaction with their physicians has increased in every year since 1978.

A public opinion survey conducted by an independent research firm for the AMA found that satisfaction with every aspect of the most recent visit—including treatment by staff, physicians' willingness to explain, office waiting time, length of time to get an appointment, and quality of medical care—has increased over previous levels, from 87% in 1978 to 94% in 1982.

The increasing physician-to-patient ratio doubtless is a major factor in improving satisfaction, the pollsters said. Physicians have more time to spend with their patients after a shorter wait. Staff members are less hurried, and physicians are able to take a few extra minutes to explain medical matters, the report noted.

The Marijuana Circuit

Investigators have found that smoking three "joints" a week is roughly the carcinogenic equivalent of a pack-a-day cigarette habit.

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Here and There . . .

. . . **Dr. Edward L. Langston** of Flora has been appointed to the Committee on Drugs and Devices, American Academy of Family Physicians.

. . . **Dr. Alvin J. Haley** of Indianapolis has been appointed chairman of the Commission on Education, American Academy of Family Physicians.

. . . **Dr. Eugene W. McDonald** of Michigan City discussed asthma during a February meeting of the Memorial Hospital Respiratory Support Group.

. . . **Dr. Robert S. Daly** of Beech Grove has been named a fellow of the American College of Chest Physicians.

. . . **Dr. John W. Kennedy** of Marion has been appointed Grant County health officer.

. . . **Dr. Thomas R. Scherschel** is the new president of the medical staff, St. Joseph Memorial Hospital, Kokomo; **Dr. Alan R. Crebo** is president-elect, and **Dr. Joseph T. Green** is secretary.

. . . **Dr. Glenn B. Mather,** director of nuclear medicine at Bloomington Hospital, was guest speaker for the February meeting of Bloomington's Cardiac Support Group.

. . . **Dr. Dean D. T. Maglinte** of Indianapolis served on the faculty of the fourth annual International Gastroenterology Conference, held in Florida in February; he discussed "Current Radiological Approach to Diagnosis of Small Bowel Disease."

. . . **Dr. John O. Carter** is the new president of the medical staff, St. Mary Medical Center, Hobart; **Dr. Rodolfo L. Jao** is president-elect, **Dr. Bhoopalam Krishnadev** is secretary, and **Dr. Cristomo Carlos** is treasurer.

. . . **Dr. Richard W. Campbell** of Indianapolis was guest speaker for the February kick-off dinner meeting of the Dubois County Unit, American Heart Association.

. . . **Dr. James S. Hill** of Fort Wayne participated in a Hemophilia Comprehensive Care Clinic at Lutheran Hospital in February.

. . . **Dr. Wallace B. Carruthers** of Auburn is the new chief of the medical staff at DeKalb Memorial Hospital; **Dr. William H. Hathaway** is chief of staff-elect.

. . . **Dr. Joseph V. Lazzara** of Vincennes discussed "Infant Related Emergencies" during the February EMT in-service education program at Vincennes University.

. . . **Dr. Jack C. Moore** of Muncie was guest speaker at the February meeting of Citizens Against Drugs, Muncie.

. . . **Dr. James M. Fink** of South Bend discussed general health aspects such as diet and exercise during a February meeting of the South Bend Rotary Club.

. . . **Dr. John C. Johnson** of Crown Point has been re-elected chairman of the 13-member Indiana Emergency Medical Services Commission.

. . . **Dr. Richard D. Taylor** of Lafayette was one of the instructors during a four-part "Have a Healthy Heart" series conducted by the St. Elizabeth Hospital Wellness Center.

. . . **Dr. Dean L. Strycker** is the new president of the medical staff, Memorial Hospital, South Bend; **Dr. George B. Friend** is vice-president, and **Dr. Alfred C. Cox** is secretary-treasurer.

. . . **Dr. Robert S. Kepner** is the new president of the medical staff, Community Hospital, Anderson; **Dr. Gerald P. Irwin** is chief of staff, **Dr. David G. Jones** is vice-president, and **Dr. Bert I. Davis** is secretary-treasurer.

. . . **Dr. John A. Forchetti** of East Chicago discussed the cardiovascular system during a recent meeting of the Michigan City Community Mended Hearts Club.

. . . **Dr. C. David Ryan** of Columbus discussed the diagnosis and treatment of Premenstrual Syndrome during a local PMS awareness meeting in February.

. . . **Dr. Carl B. Howland** of Crawfordsville is the new Montgomery County health officer.

. . . **Dr. Peter H. Scott** of Indianapolis discussed Sudden Infant Death Syndrome during a February SIDS workshop in Pittsboro.

. . . **Dr. Harold G. Holbrook,** the Indianapolis surgeon who performed Indiana's first heart transplant, was introduced to the Indiana House of Representatives in February.

. . . **Dr. Ara K. Yeretsian** has been named medical director of the Alcoholism Institute of Methodist Hospital, Merrillville.

. . . **Dr. James M. Lorber** of Mishawaka discussed cancer during a February eight-session "I Can Cope" program in South Bend.

. . . **Dr. James A. Hall** of Logansport has been named a fellow of the American College of Surgeons.

. . . **Dr. Trent G. Orfanos** discussed angioplasty during a February meeting in Crown Point of the Northwest Indiana Chapter of the Mended Hearts.

. . . **Dr. Roland C. Ahlbrand** of Fort Wayne, medical director of General Telephone Company of Indiana, addressed a February dinner meeting of the Grant County Personnel Association.

. . . **Dr. Werner L. Loewenstein** of Terre Haute has been named medical director of the Vigo County Home.

. . . **Dr. John E. Pless** of Bloomington discussed Sudden Infant Death Syndrome during a January SIDS workshop in Greenfield.

. . . **Dr. Stephen L. Anderson** is the new president of the medical staff, St. Joseph's Medical Center, South Bend; **Dr. Edward A. Gergesha** is vice-president, and **Dr. Harry R. Stimson** is secretary.

. . . **Dr. Charles W. Calhoun** of Seymour served as chairman of the 1983 American Heart Association campaign in Jackson County.

. . . **Dr. Sheldon J. Friedman** of Noblesville has been elected to fellowship in the American College of Cardiology.

. . . **Dr. Harold M. Manifold** of Bloomington was presented the Maynard K. Hine Award by the Indiana University Alumni Association last month.

New Interferon Plant

Schering-Plough plans to build the world's first commercial interferon manufacturing plant in Ireland. The new development will be located in Brinny, Innishannon, County Cork, and will be built on a phased work basis to permit continuing assessment of the progress of interferon in the trials which are showing encouraging results in cancer and viral infection studies.

NEWS NOTES

Reducing Drunk Driving

The first meeting of the ISMA Ad Hoc Committee to Reduce Drunk Driving, established by resolution during the last annual meeting of the House of Delegates, was attended by Stephen Goldsmith (right), Marion County prosecutor, and attorney Bobby Small (lower right), chairman of the Governor's Task Force to Reduce Drunk Driving. Chairman of the new ISMA committee is Dr. Michael DuBois (below), an Indianapolis internist. He attended a seminar in Washington, D.C., last fall which gathered experts to examine the problem of drunk driving and possible solutions.

The ad hoc committee voted unanimously to support S.B. 171, a state senate bill presented by the Governor's Task Force to Reduce Drunk Driving and written by Mr. Small.

Besides Dr. DuBois, committee members include Doctors Larry Thompson, Larry Davis, Davis Ellis, Ned Lamkin, Richard Huber, James Walsh and Jack Walker.

PHOTOS BY JOYCE WOLF







Details on 'How To' Series

Roche Laboratories is preparing a Medication Education Program which plans to distribute 12 million booklets to consumers nationwide. The booklets tell how to get the most benefit from prescription medicines in five classes. Antibacterials, antiarthritics, diuretics, tranquilizers and sleep medications will each be explained in a separate booklet which tells how to use the medication properly and how to make certain to get the greatest benefits and avoid any problems.

Physicians and pharmacists have utilized the booklets since September 1982. Television and radio announcements and magazine/newspaper advertisements will further the campaign. Health care professionals will receive kits of camera-ready materials for reproduction by societies with society logos.

Indiana's First NMR Device Tested; Booklet Available

Indiana's first Nuclear Magnetic Resonance (NMR) imaging device is in operation at the Indiana University Medical Center. Powerful magnetic force, radio signal transmissions, and computerized graphics form a complex system which "pictures" soft tissues—the organs and muscles—more thoroughly than any other machines now in use. It is being operated in an investigative program to provide information to the FDA with a view toward demonstrating safety and effectiveness.

Booklet Offered

The basic principles of NMR and recent progress in clinical applications of the technology are discussed in a 32-page technical booklet from General Electric Company.

"NMR: A Perspective on Imaging" discusses the physical principles of magnetic resonance imaging, reviews recent research developments and discusses the potential efficacy of NMR versus CT scanning. It outlines imaging techniques and describes the interrelationship and functions of NMR system components. It also includes a detailed reference list and a glossary of NMR terms.

Write for Publication 5485, General Electric Company, Medical Systems Operations, P.O. Box 11944, Milwaukee, Wisc. 53211.

EMS Transport Policy

The American College of Emergency Physicians has adopted a policy that all patients being transported under the direction of emergency medical services (EMS) should be taken, whenever possible, to an inhospital facility. If a patient's condition demands immediate stabilization, and a hospital is not reasonably available, the EMS Control Authority in charge of patient transport should designate a non-hospital facility, which meets the Emergency Care Guidelines.

ACNP Speakers Bureau

The American College of Nuclear Physicians (ACNP) has established a Public Education Program and is providing speakers—without charge—to address the subject of Nuclear Medicine and its surrounding nuclear waste issues. Address the College at Suite 700, 1101 Connecticut Ave., N.W., Washington, D.C. 20036, or call (202) 857-1135.

Diabetes TV Special

"Diabetes: Update '83," a four-hour "informathon" on diabetes, will be aired nationwide on Cable Health Network June 5. The TV special is being produced by Cable Health Network in cooperation with the American Diabetes Association.

The informathon is being sponsored by Pfizer Pharmaceuticals as part of its Healthcare Education Program, which is aimed at both the undetected ill as well as the diagnosed patient. Its stated purpose is to educate the consumer on the early warning signs of various major diseases. The underlying messages stress the importance of recognizing these symptoms and reporting them early to a physician so as to deal with them at a manageable stage.

Actifed Approved for OTC

Actifed®, a Burroughs Wellcome product, is now available without a prescription. Actifed has been the number one tablet prescribed for colds over the last eight years. The FDA has approved the switch from prescription to over-the-counter sale. The trend toward OTC drug preparations is viewed as important because of rising health care costs and growing emphasis on personal responsibility for health maintenance.

Cardiology Videocassette

The American College of Cardiology, aided by a grant from Merck, Sharp and Dohme, has produced a self-assessment videocassette on Treatment of Acute Myocardial Infarction. The videocassette is available in ½″ VHS, ½″ Beta or ¾″ Umatic format. It is full-color, full-sound and presents five patients by symptoms, electrocardiograms, coronary angiograms, stress test results and other data.

Included is a 20-page booklet containing patient symptoms and the alternative treatments suggested. It is useful as a handy reference. Cost of the videocassette is $125. Write to the College in care of ACCEL Dept., 9111 Old Georgetown Road, Bethesda, Md. 20814.

New Hospital in Greenwood

A new, 120-bed hospital now under construction in Greenwood is scheduled to open Aug. 1. It is under the sponsorship of Community Psychiatric Centers and will specialize in psychiatric and chemical dependency cases involving adults and adolescents. Dr. Robert E. Snodgrass, board-certified psychiatrist, has been appointed medical director. Mr. Alan Mittermaier, formerly on the staff of Methodist Hospital in Indianapolis, will serve as administrator.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

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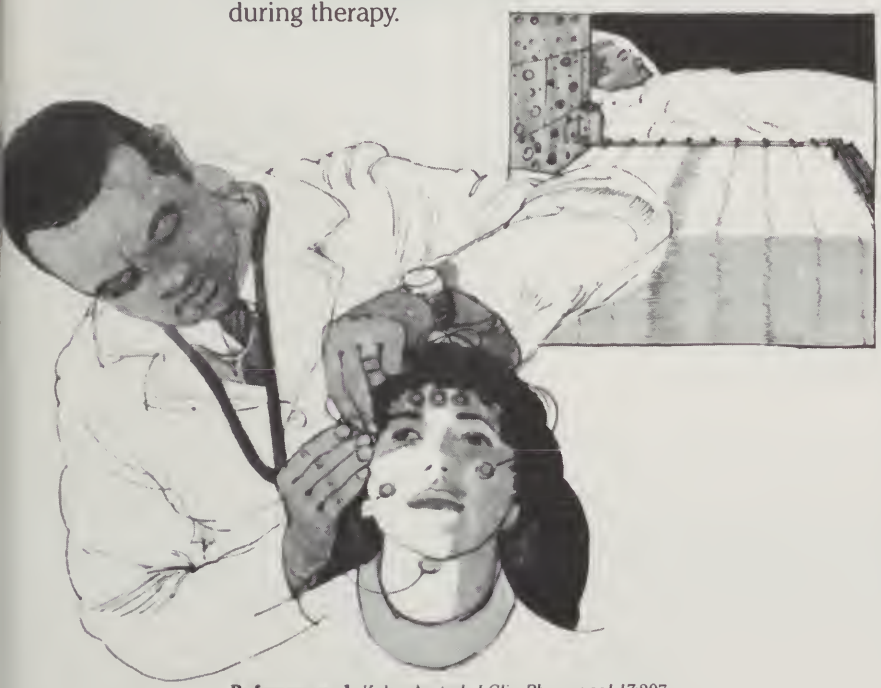
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- During long-term therapy, which is seldom required, periodic blood, kidney and liver function tests should be performed.
- Contraindicated in patients who are pregnant or hypersensitive to flurazepam.
- Caution patients about drinking alcohol, driving or operating hazardous machinery during therapy.



References: 1. Kales A *et al: J Clin Pharmacol 17*:207-213, Apr 1977 and data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Kales A: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **3.** Zimmerman AM: *Curr Ther Res 13*:18-22, Jan 1971. **4.** Kales A *et al: JAMA 241*:1692-1695, Apr 20, 1979. **5.** Kales A, Scharf MB, Kales JD: *Science 201*:1039-1041, Sep 15, 1978. **6.** Kales A *et al: Clin Pharmacol Ther 19*:576-583, May 1976. **7.** Kales A, Kales JD: *Pharmacol Physicians 4*:1-6, Sep 1970. **8.** Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc 27*:541-546, Dec 1979. **9.** Dement WC *et al: Behav Med 5*:25-31, Oct 1978. **10.** Vogel GW: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **11.** Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington, DC, May 3-7, 1971. **12.** Pollak CP, McGregor PA, Weitzman ED: The effects of flurazepam on daytime sleep after acute sleep-wake cycle reversal. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, June 30-July 4, 1975. **13.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

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(flurazepam HCl/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

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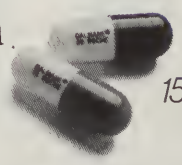
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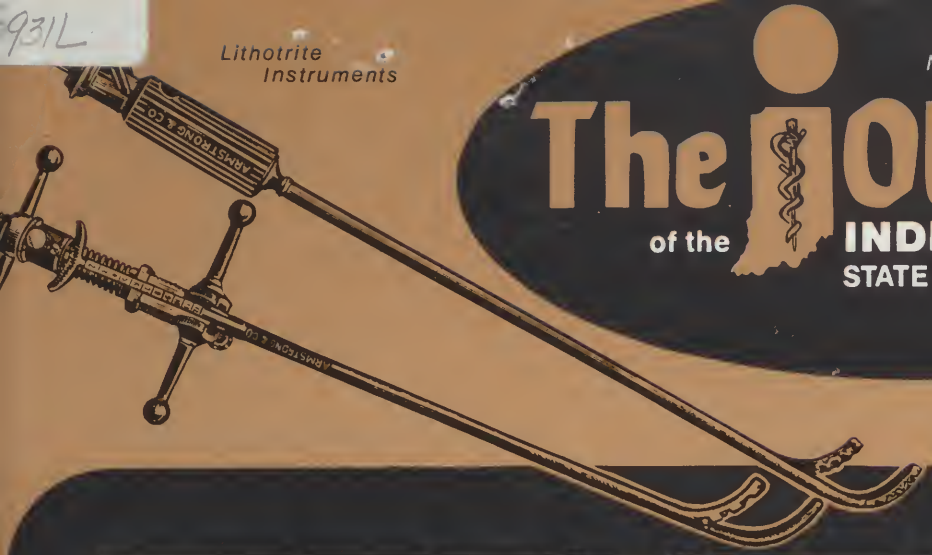
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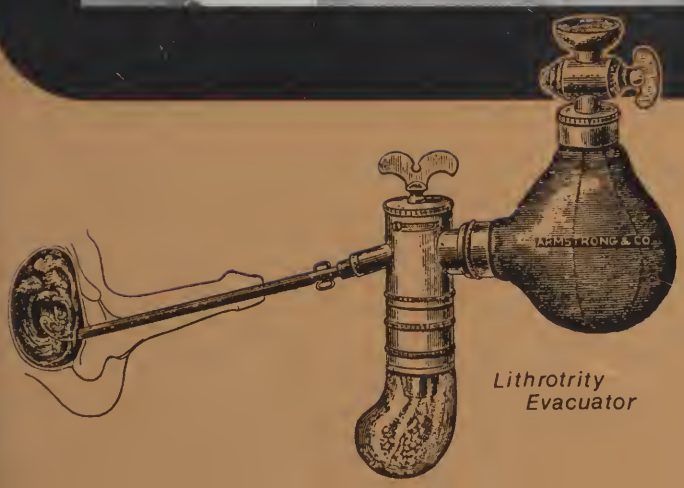
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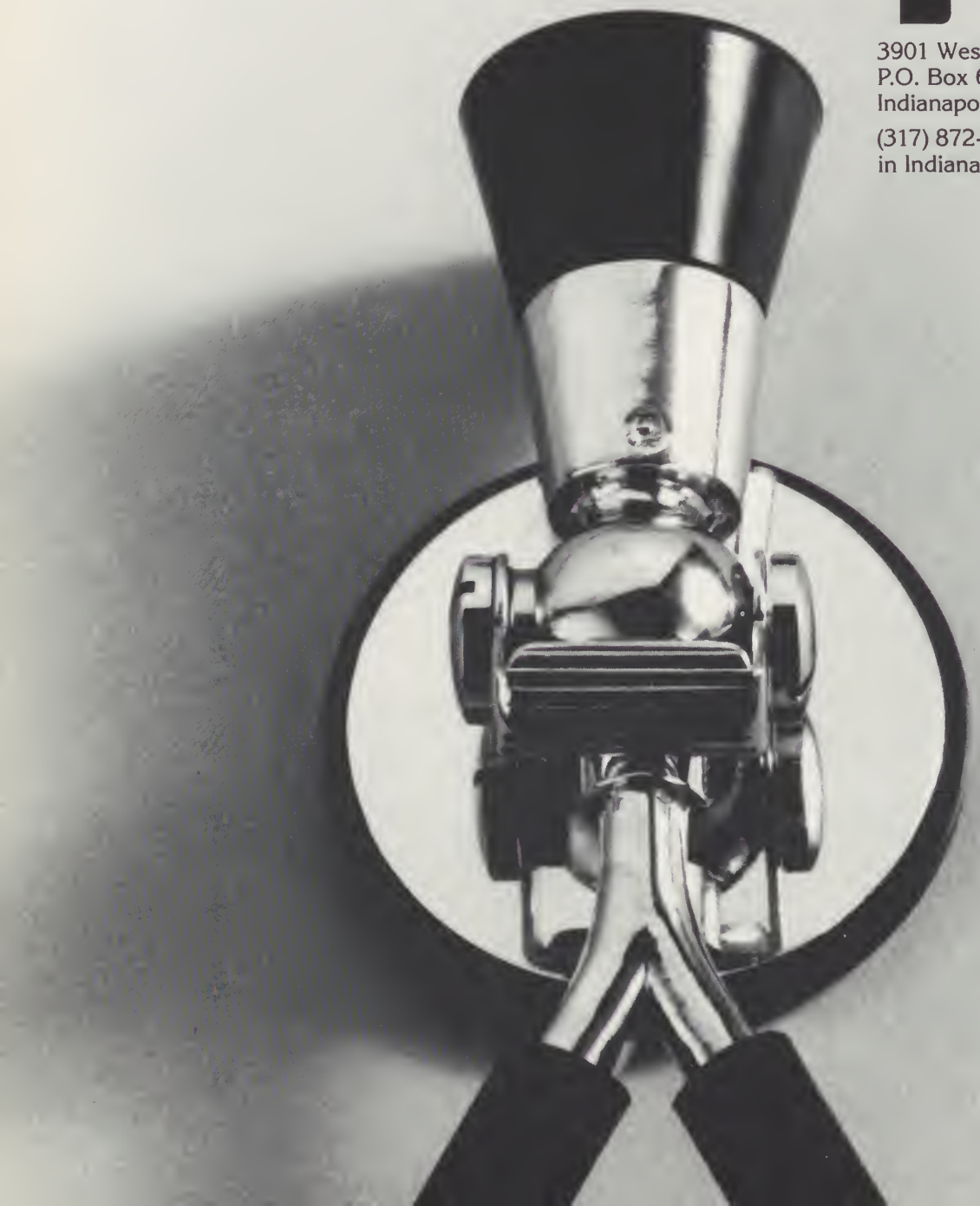
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MAY 1983
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Sandoz Medical Journalism Award—1976, 1979

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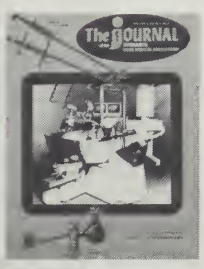
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ABOUT THE COVER

The extracorporeal shock wave lithotriptor, a device for the non-surgical removal of renal calculi, provides a space age contrast to turn-of-the-century invasive crushing tools called lithotrites. Modern treatment of nephrolithiasis—the presence of kidney stones—is discussed in this month's CME article, and 19th century treatment is the subject of Medical Museum Notes.

—COVER BY FRED KINGHORN

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ANNOUNCING...

The Deaconess Hospital Center for Reconstructive Hip and Knee Surgery

It's an answer to a regional need.

The Deaconess Hospital of Cincinnati is pleased to offer a new regional service for patients undergoing total joint replacement. Initiated in November, 1982, by the Hospital in cooperation with its Medical Staff, a comprehensive program has been developed by the orthopedic surgeons of the staff in conjunction with internists, rheumatologists and other support personnel.

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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

DR. JAMES E. LINGEMAN, Associate Professor of Urology at I.U.M.C., provides this month's CME article on Nephrolithiasis, in which he tells of the extracorporeal shock wave lithotriptor (see front cover) by means of which kidney stones are pulverized utilizing a non-invasive technique, so that they can be passed naturally and without pain. This appears to be a truly remarkable solution to a relatively common medical problem, which, since time immemorial, has been a source of pain and misery, and sometimes death.

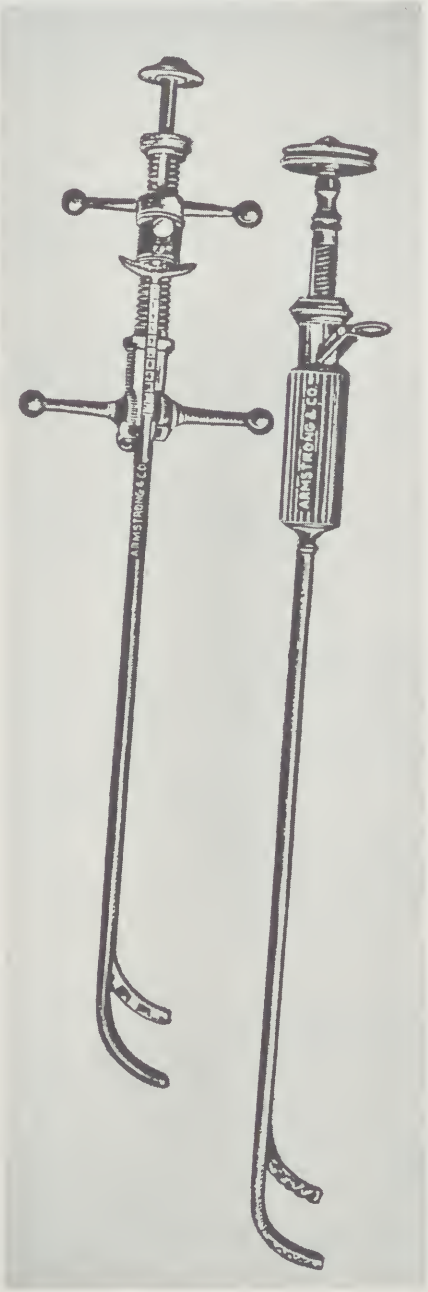
Dr. I. B. Hill of Seymour reported an experience with this problem which occurred in January 1899:* "I was called at two o'clock to see F. W., who was about 50 years of age. The history of the case was like this, as I now recall it: His occupation was a railway mail messenger. He had returned home from his run. Had some muscular soreness, which he attributed to cold, and was fearful of contracting la grippe, as, if you will recall to mind, this disease was most prevalent here at that time. Before retiring he had taken a steam bath in a cabin at his residence . . .

"Shortly after retiring he was suddenly seized with a most agonizing pain over the left kidney as if a knife had pierced a most sensitive and vital part. The pain very soon moved downward over the course of the ureter, but before descending to the bladder located itself, from which point, pains radiated to the testicle and thigh, back and shoulders. His suffering was most intense. It was agony to him and agonizing to his family to see him thus suffering.

"I diagnosed the cause to be renal calculus. In my opinion the relaxation of the system from the steam bath had stimulated the excretion of urine, and this, with the exercise of rubbing the surface of the entire body, including the region of the kidney, had dislodged a stone in the pelvis of the kidney which lodged in the ureter, producing the symptoms above narrated. A large quantity of clear urine was evacuated from the bladder very soon after the attack. Following this the amount of urine voided was very small, and highly colored. Desired to urinate frequently.

"I at once gave hypodermically one-fourth grain morphia and applied heat to the abdomen and over the kidneys by means of hot water bottles. There being but slight amelioration of the suffering I gave a second injection of the morphia in two hours, and afterwards, about every four hours until the stone had passed to the bladder, when the patient took a refreshing sleep and the anodyne was no longer required . . . I was with the patient thirty-six hours after the attack, when the calculus passed from the ureter into the bladder.

"As I sat by his bedside, he said, after suffering an attack of more excruciating pain, 'I feel it passing; there, there, will I ever get relief? There, it is over now. Do you think I am likely to pass another soon? If so I shall surely die! His own language, fully illustrating the great dread with which sufferers from this disease anticipate a return of the pain."



Dr. Hill terminated his treatment at this point, the stone remaining in the patient's bladder. Had he proceeded to have the stone removed from the bladder, at least two surgical procedures were available: suprapubic lithotomy, and lithotripsy, whereby the stone is crushed within the bladder by means of a lithotrite introduced through the urethra.

Illustrated on this page is a reproduction from Armstrong's Catalogue, showing a lithotrite available at the turn of the century. When manufactured these instruments were tested by breaking with them pieces of soft grindstone. Surgeons were advised to do the same before attempting to use them within the bladder. "When a stone is between the jaws of a lithotrite, and the screw turned, the operator will distinctly recognize a certain recoil and spring of the instrument before the stone is crushed. This sensation requires to be studied in order to know how far the instrument may be taxed (when used unassisted by eyesight), on a bladder calculus."

The front cover shows additional apparatus from Armstrong for this procedure to contrast with the extracorporeal shock wave lithotriptor mentioned in Dr. Lingeman's very interesting and informative CME article (pages 313-318).

* Trans. Ind. Med. Soc., p. 262, 1903.

WHAT'S NEW?

Marion Laboratories has FDA approval for marketing a device for rapid detection of bacteriuria. Bac-T-Screen™ is a compact dispensing and filtering system that automatically stains bacteria present in urine samples on special filter cards. Test results are available in two minutes.

The 3M Company is introducing the first rare earth x-ray system designed specifically for chest examinations. It affords a 40% improvement in resolution of chest radiographs due to unique properties of the film. Trimax GT anti-crossover chest film, when used with the system, can improve the modulation transfer function up to 40% over conventional films.

Philips Ultrasound has introduced the SDU 3000 Series, a new generation of cost-effective, high-resolution imaging systems that offer real-time, servo-sector, linear array, cardiac, Doppler, and static B-scan capabilities. The system is compact and is light enough to be easily moved by one person through a medical facility without loss of calibration.

Hewlett-Packard has the first in a series of publications on ultrasound imaging technology. "The New Cardiac Imaging System for the Advancing Echocardiographer" is the title of a new brochure available without charge from HP Medical Products Group, 100 Fifth Ave., Waltham, Mass. 02254.

Sequoia-Turner introduces Cell-Dyn 700 Microcomputer Controlled Hematology Analyzer. It supplies rapid determinations of WBC, RBC, Hgb, Hct, MCV, MCH, and MCHC, which are displayed or printed as desired.

Boots Pharmaceuticals introduces a new prescription product, ZORprin® (Zero-Order Release Aspirin), for treatment of arthritis. ZORprin dissolves in the small intestine and not in the stomach. It also accomplishes a steady release, which eliminates the "picket fence" syndrome of changing blood levels. It is recommended for patients who require a high dosage for rheumatoid arthritis or osteoarthritis.

Dorex Medical has a new quantitative medical thermography instrument designed for individual offices or small clinics. Designated as the DCATS II, the computerized screening system scans the body with an infrared camera, extracting data that are stored on magnetic media for future processing, display and analysis. Data may be returned and simultaneously displayed in 10 colors and 16 shades of black and white on color and black-and-white monitors.

Boots Pharmaceuticals is marketing Reufen® (ibuprofen) in the United States. The nonsteroidal, anti-inflammatory agent was developed by Boots and originally licensed to the Upjohn Company, which has marketed it for several years under the trade name Motrin® . Boots now has a pharmaceutical organization in the U.S. and markets the drug in competition with its licensee.

BLAK-RAY® ultraviolet eye and face protection emphasizes lightweight materials and comfort. UVC-803 Face Shield protects entire face without close-to-the-face confinement. UVC-503 Goggles protect the entire periphery of vision. UVC-303 Spectacles are for wear with or without eyeglasses. Special side panels protect against side exposure.

Roche is introducing Bumex® (bumetanide/Roche), a new loop diuretic. It is indicated for treatment of edema associated with congestive heart failure, and hepatic and renal disease, including the nephrotic syndrome. It will be available both in oral and injectable forms. Both dosage forms provide prompt onset and short duration of action.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

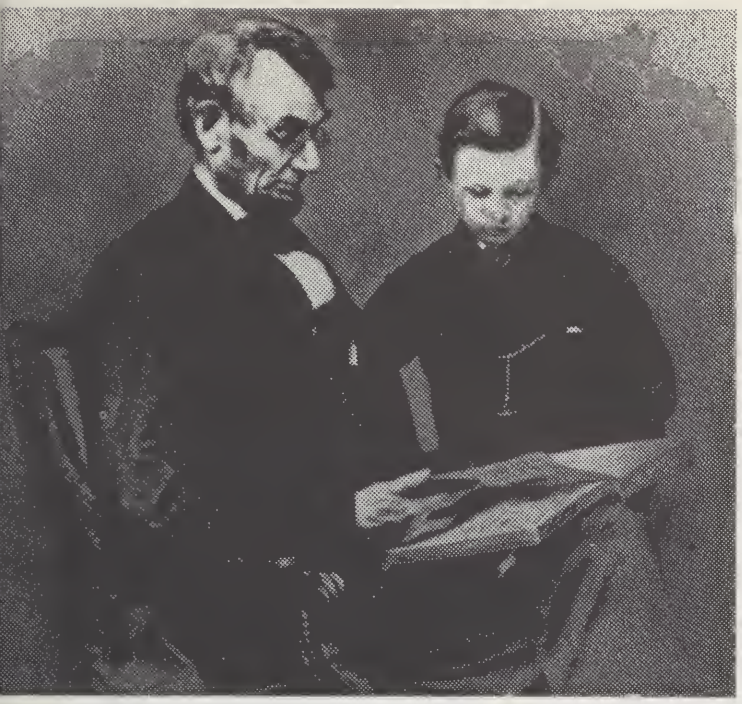
The 3M Company has a free brochure that documents the effectiveness and safety of the new Thinsulate Neonatal Thermal Wraps. Independent clinical studies have demonstrated the superiority of Thinsulate Thermal Wraps over conventional blankets and caps in reducing newborn heat loss. The wraps are available in bunting and headwrap styles for both premature and full-term infants.

Anesthesia Respiratory Technology has received FDA approval to market their ARTEC Twist Valve (tm), patent pending. This is a unique anesthesia valve placed within a rebreathing bag in pediatric anesthesia procedures.

The Electric Wastebasket Corporation announces the 8th edition of "Record Retention Timetable". It is an 8-page guide on the question, "How long must you keep important papers?" It names various government authorities and specifies the time the law demands for retention of over 170 listed office records including daily invoices, accounts receivable and accounts payable ledgers. The guide suggests how to dispose of records safely—when you are legally allowed to.

Instromedix announces the first pocket-size transtelephonic ECG recorder that captures and stores three separate cardiac events. The events may then be transmitted by telephone to a LifeSigns Receiving Center or the instrument may be taken to the physician's office for transfer to the LRC. The instrument is named CardioDiary. Each event may be recorded up to 32 seconds each. The time interval between events is automatically recorded.

Johnson & Johnson has an artificial-fiber sponge called NU GAUZE™ which replaces ordinary gauze sponges. The new product is more efficient, less traumatizing, and less expensive. It is composed of synthetic fibers for strength and rayon fibers for absorbency. It possesses 47% greater absorbency than 12-ply gauze and is strong enough for a wide variety of applications. NU GAUZE sponges are 4-ply in 2x2, 3x3, and 4x4 inch sizes.



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FUTURE FILE

Disabling Injuries

An AMA conference on the "Prevention of Disabling Injuries" will be conducted at the Omni International Hotel in Miami, Fla., May 20-21.

The conference, planned by the AMA's Council on Scientific Affairs, meets criteria for nine Category 1 credit hours. Registration fee is $65 for AMA members, $90 for non-members.

For details, contact the AMA Dept. of Meeting Services, 535 N. Dearborn St., Chicago 60610—(312) 751-7209.

AHA Trustee Forum

The sixth annual AHA Trustee Forum, sponsored by the American Hospital Association, will meet June 23-25 in San Francisco. It is designed for hospital governing board members, chief executive officers, and physicians responsible for the governance function. The meeting is certified for nine hours of Category 1 credit.

Pediatrics Symposium

The 11th annual Fall Pediatric Surgery/Pediatrics Symposium concerning the "Care of the Seriously Ill Child" will be sponsored by the I.U. School of Medicine at the Indianapolis Atkinson Hotel, Sept. 21 and 22. Numerous guest speakers from pediatric centers of the U.S. will participate.

For information, write Dr. Jay L. Grosfeld, Riley Hospital, 702 Barnhill Drive, Indianapolis 46223 or phone (317) 264-4681.

South Carolina Seminar

A combined CME and vacation seminar for physicians and their families will be conducted Oct. 2-7 at Mariner's Inn on Hilton Head Island, S.C. ISMA members are invited to participate.

The seminar, sponsored by the South Carolina Medical Association, in cooperation with the faculty of the Medical School of the Medical University of South Carolina, is accredited for 28 hours of CME credit. Registration is $320.

Contact J. Charles Johnson, P.O. Box 11188, 3325 Medical Park Road, Columbia, S.C. 29211—(803) 252-6311.

Spinal Manipulation

"Current Concepts and Rationale for Spinal Manipulation" is the subject of an all-day CME program at the Red Carpet Hotel and Convention Center in Milwaukee on June 11. The program is directed to physical therapists and physicians. The instructor will be Stanley Paris, director of the Atlanta Back Clinic, who has 20 years experience in physiotherapy of the back. The tuition is $49. Write or phone Mary Jensen, P.O. Box 133-L, Franksville, Wisc. 53126—(414) 886-0116.

Ethics Workshop

"Ethical Issues in the Health Professions and the Biomedical Sciences" will be the subject of a workshop sponsored by the Institute of Society, Ethics and the Life Sciences. The workshop will meet from June 19 through 24 on the campus of Vassar College, Poughkeepsie, N.Y. It is aimed at professionals in medicine, social work, nursing, allied health professions and law and health administration.

Contact Eric Feldman, Hastings Center, 360 Broadway, Hastings-on-Hudson, N.Y. 10706—(914) 478-0500.

Community Cancer Care

The Second National Seminar on Community Cancer Care will be held at the Hyatt Regency, Indianapolis, Sept. 16, 17 and 18. The purpose of the seminar is to encourage and give direction to the development of community initiated cancer care programs. Round table and open forum discussions will provide participants an opportunity to gain in-depth information.

For information, write Office of Continuing Medical Education, Methodist Hospital, 1604 N. Capitol Ave., Indianapolis 46202. A complete program will be furnished.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

English Pronunciation

The AMA English Pronunciation Seminar, a huge success last year, will be repeated Sunday, May 22, from 9 a.m. to 5 p.m. at Inn of Chicago, 162 E. Ohio St. The seminar is an intensive one-day review that includes a textbook and nine audio cassettes for extended home study.

The fee, which includes breakfast and lunch, is $156 for AMA members, $108 for residents who are AMA members, $204 for non-members, and $132 for residents who are not AMA members.

Attendance is limited. Contact the Dept. of Medical Informatics, AMA, 535 N. Dearborn, Chicago 60610—(312) 751-5670.

Child's Concept of Death

A multidisciplinary three-day symposium on "The Child's Concept of Death" will be conducted June 2-4 in New York.

The symposium, concerned with the sensibilities of parents and members of the medical profession, will be held at the Alumni Auditorium, Columbia-Presbyterian Medical Center, 168th St. and Port Washington Ave., New York City.

To register, contact Dr. Austin H. Kutcher, The Foundation of Thanatology, 630 W. 168th St., New York, N.Y. 10032—(212) 694-4173.

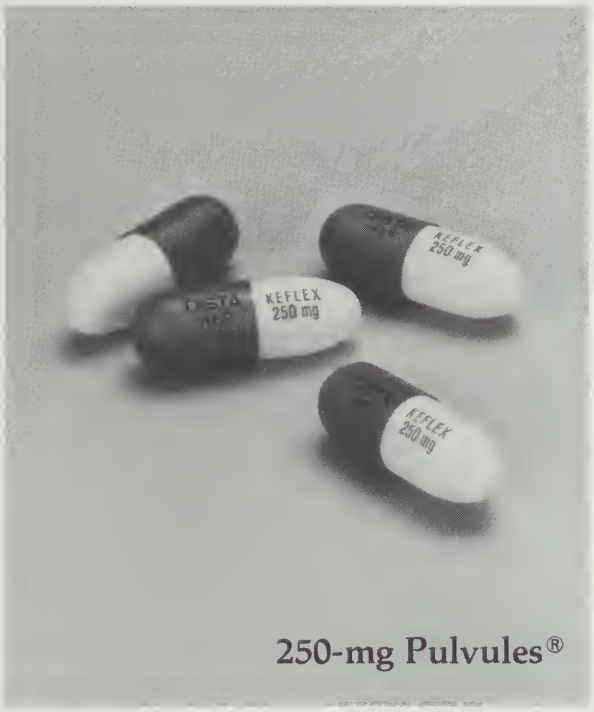
Behavioral Neurology

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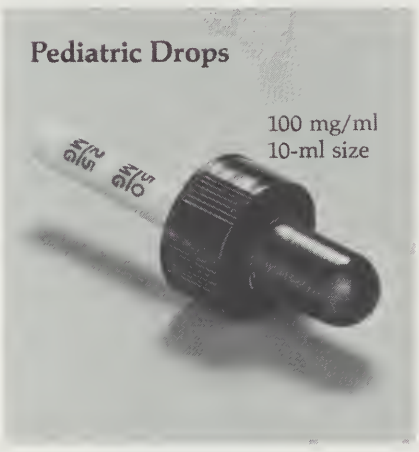
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PUBLIC HEALTH NOTES

To discuss the role of a state public health laboratory one must first define the term "public health." Each state has its own definition based on which diseases or health problems are of public health significance, and establishes the priorities to control them. The decisions made in this regard determine the type of laboratory facilities required to service the state's needs.

Most public health programs are aimed at the *prevention* of disease and handicapping conditions, and require laboratory support in determining incidence, distributions and control. Among the purest of public health activities are those laboratory efforts directed at prevention, such as the microbiological and chemical testing of milk, food, water, etc. Of equal public health importance is the laboratory identification of communicable disease-causing organisms and case-finding through the diagnosis of disease.

Environmental pollutants are rapidly gaining well deserved respect as having a great potential for harm to the public's health. In this regard, laboratory programs are expanding rapidly to accommodate the need for testing air, water, and soil for what are known as the "priority pollutants."

The scope of operations of the State Board of Health laboratory has increased greatly since it was established by law in 1905. It now touches upon practically every phase of work dealing with control of the environment and the war against communicable disease. One might wonder, though, why we have a state health laboratory when our taxes are also paying for such establishments as the U.S. Public Health Service, the National Institutes of Health and the Centers for Disease Control, especially when everyone "knows" the services offered are duplicated in the private sector and in the local public health laboratories.

The answer, of course, is that very little work performed in the state laboratory is duplicated anywhere except perhaps in other state health laboratories. County and local health departments are generally considered extensions of the state health department for the enforcement and delivery of state health programs, while the federal role primarily is one of assistance to the state.

The Indiana State Board of Health has three laboratory divisions engaged in the testing of clinical specimens in support of the state epidemiology programs: the microbiology, serology, and virology laboratories.

The Microbiology Division includes seven separate laboratory units: enteric bacteriology, mycobacteriology, mycology, parasitology, rabies, special microbiology and reference bacteriology. During the fiscal year 1982, 18,013 examinations were performed on 12,007 specimens in all categories. Except for rabies, specimens are accepted only from practicing physicians, pathologists and public health officials (animal heads for rabies examination are also accepted from the general public).

The Serology Division performs serologic tests in support of the communicable disease control programs of the State Board of Health, and in 1982, 52,419 examinations were performed on 38,813 specimens. In addition to the usual tests for syphilis, serological tests are also made for fungal diseases, febrile diseases, leptospirosis, trichinosis, toxoplasmosis, rubella, and amebiasis. This laboratory is also responsible for the approval and proficiency evaluation of laboratories in Indiana which perform premarital and prenatal syphilis serologies.

The Virology Division performs serologic tests and culture procedures on specimens submitted by Indiana physicians for the detection and confirmation of viral infections, especially during periods of viral outbreaks and epidemics. Diagnostic services are also maintained for the detection of certain mycoplasmal, chlamydial and rickettsial agents, as well as the agents of Legionnaires' Disease. Laboratory assistance is provided for epidemiological programs through surveillance and investigation of outbreaks of influenza, measles, viral encephalitis, and the agents of aseptic meningitis.

All of these microbiological laboratories serve as reference for other laboratories in the state, providing confirming tests and test services that are not available locally. Counsel is given on procedures for collection, storage and shipment of specimens and the interpretation of test results.

The State Board of Health also houses four laboratories which provide support for surveillance and improvement of the environment: the water and sewage, air monitoring, radiological health, and the industrial hygiene laboratories. The Food, Drug and Dairy laboratory provides support to the Bureau of Food and Drugs through its monitoring of products for conformance to legal standards.

The environmental programs have been expanding rapidly during the past few years, and it is likely they will continue to do so in the foreseeable future. The Division of Land Pollution Control requires the identification and quantification of unknown pollutants in hazardous waste dumps. The Water Pollution Control Division conducts its surveillance, in part, through the laboratory analysis of stream and ground waters. Drinking waters, public swimming pools, and sewage treatment effluents must also be monitored to ascertain whether they meet legal standards.

To a degree, the environmental work is subsidized by the federal government through grants from the U.S. Environmental Protection Agency (EPA). In return, the EPA requires a strict vigil over the quality of work conducted by state laboratories. This is expensive work. A gas chromatograph/mass spectrometer with an adequate data system costs $150,000 to $200,000. Training the operators of such instruments is slow and expensive; but the work must be done.

T. L. Eddleman is the director of our Bureau of Laboratories and would be happy to discuss with you any suggestions or problems you have regarding laboratory services. He can be reached at 317/633-0221.



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INDICATIONS AND USAGE: These preparations are indicated for the treatment of infections caused by susceptible strains of designated microorganisms as follows: Respiratory Tract Infections (e.g., tonsillitis, pharyngitis, and lobar pneumonia) due to *S. pneumoniae* (formerly *D. pneumoniae)* and group A beta-hemolytic streptococci [penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever; Velosef (Cephradine, Squibb) is generally effective in the eradication of streptococci from the nasopharynx; substantial data establishing the efficacy of Velosef in the subsequent prevention of rheumatic fever are not available at present]; Otitis Media due to group A beta-hemolytic streptococci, *H. influenzae,* staphylococci, and *S. pneumoniae;* Skin and Skin Structures Infections due to staphylococci and beta-hemolytic streptococci; Urinary Tract Infections, including prostatitis, due to *E. coli, P. mirabilis, Klebsiella* species, and enterococci *(S. faecalis).*

Note: Culture and susceptibility tests should be initiated prior to and during therapy.

CONTRAINDICATIONS: In patients with known hypersensitivity to the cephalosporin group of antibiotics.

WARNINGS; *Use cephalosporin derivatives with great caution in penicillin-sensitive patients since there is clinical and laboratory evidence of partial cross-allergenicity of the two groups of antibiotics; there are instances of reactions to both drug classes (including anaphylaxis after parenteral use).* In persons who have demonstrated some form of allergy, particularly to drugs, use antibiotics, including cephradine, cautiously and only when absolutely necessary.

Pseudomembranous colitis has been reported with the use of cephalosporins (and other broad spectrum antibiotics); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic use. Treatment with broad spectrum antibiotics alters normal flora of the colon and may permit overgrowth of clostridia. Studies indicate a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin *in vitro.* Mild cases of colitis may respond to drug discontinuance alone. Manage moderate to severe cases with fluid, electrolyte and protein supplementation as indicated. Oral vancomycin is the treatment of choice for antibiotic-associated pseudomembranous colitis

produced by *C. difficile* when the colitis is severe or is not relieved by drug discontinuance; consider other causes of colitis.

PRECAUTIONS: General: Follow patients carefully to detect any side effects or unusual manifestations of drug idiosyncrasy. If a hypersensitivity reaction occurs, discontinue the drug and treat the patient with the usual agents, e.g., pressor amines, antihistamines, or corticosteroids. Administer cephradine with caution in the presence of markedly impaired renal function. In patients with known or suspected renal impairment, make careful clinical observation and appropriate laboratory studies prior to and during therapy as cephradine accumulates in the serum and tissues. See package insert for information on treatment of patients with impaired renal function. Prescribe cephradine with caution in individuals with a history of gastrointestinal disease, particularly colitis. Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. Take appropriate measures should superinfection occur during therapy. Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

Information for Patients: Caution diabetic patients that false results may occur with urine glucose tests (see PRECAUTIONS, Drug/Laboratory Test Interactions). Advise the patient to comply with the full course of therapy even if he begins to feel better and to take a missed dose as soon as possible. Tell the patient he may take this medication with food or milk since G.I. upset may be a factor in compliance with the dosage regimen. The patient should report current use of any medicines and should be cautioned not to take other medications unless the physician knows and approves of their use (see PRECAUTIONS, Drug Interactions).

Laboratory Tests: In patients with known or suspected renal impairment, it is advisable to monitor renal function.

Drug Interactions: When administered concurrently, the following drugs may interact with cephalosporins:

Other antibacterial agents — Bacteriostats may interfere with the bactericidal action of cephalosporins in acute infection; other agents, e.g., aminoglycosides, colistin, polymyxins, vancomycin, may increase the possibility of nephrotoxicity.

Diuretics (potent "loop diuretics," e.g., furosemide and ethacrynic acid) — Enhanced possibility for renal toxicity.

Probenecid — Increased and prolonged blood levels of cephalosporins, resulting in increased risk of nephrotoxicity.

Drug/Laboratory Test Interactions: After treatment with cephradine, a false-positive reaction for glucose in the urine may occur with Benedict's solution, Fehling's solution, or with Clinitest® tablets, but not with enzyme-based tests such as Clinistix® and Tes-Tape®. False-positive Coombs test results may occur in newborns whose mothers received a cephalosporin prior to delivery. Cephalosporins have been reported to cause false-positive reactions in tests for urinary proteins which use sulfosalicylic acid, false elevations of urinary 17-ketosteroid values, and prolonged prothrombin times.

Carcinogenesis, Mutagenesis: Long-term studies in animals have not been performed to evaluate carcinogenic potential or mutagenesis.

Pregnancy: Teratogenic Effects/Impairment of Fertility — Category B: Reproduction studies have been performed in mice and rats at doses up to 4 times the maximum indicated human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cephradine. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

Nursing Mothers: Since cephradine is excreted in breast milk during lactation, exercise caution when administering cephradine to a nursing woman.

Pediatric Use: Adequate information is unavailable on the efficacy of b.i.d. regimens in children under nine months of age.

ADVERSE REACTIONS: Untoward reactions are limited essentially to G.I. disturbances and, on occasion, to hypersensitivity phenomena. The latter are more likely to occur in persons who have previously demonstrated hypersensitivity and those with a history of allergy, asthma, hay fever, or urticaria.

(continued on next page)

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(continued)

The following adverse reactions have been reported following use of cephradine: G.I. — Symptoms of pseudomembranous colitis can appear during antibiotic therapy; nausea and vomiting have been reported rarely. Skin and Hypersensitivity Reactions — mild urticaria or skin rash, pruritus, joint pains. Blood — mild transient eosinophilia, leukopenia and neutropenia. Liver — transient mild rise of SGOT, SGPT, and total bilirubin with no evidence of hepatocellular damage. Renal — transitory rises in BUN have been observed in some patients treated with cephalosporins; their frequency increases in patients over 50 years old. In adults for whom serum creatinine determinations were performed, the rise in BUN was not accompanied by a rise in serum creatinine. Others — dizziness, tightness in the chest, and candidal vaginitis.

DOSAGE: Adults — For respiratory tract infections (other than lobar pneumonia) and skin and skin structures infections: 250 mg q. 6 h or 500 mg q. 12 h. For lobar pneumonia: 500 mg q. 6 h or 1 g q. 12 h. For uncomplicated urinary tract infections: 500 mg q. 12 h; for more serious UTI, including prostatitis, 500 mg q. 6 h or 1 g q. 12 h. Severe or chronic infections may require larger doses (up to 1 g q. 6 h.).

Children over 9 months of age — 25 to 50 mg/kg/day in equally divided doses q. 6 or 12 h. For otitis media due to *H. influenzae:* 75 to 100 mg/kg/day in equally divided doses q. 6 or 12 h but not to exceed 4 g/day. Dosage for children should not exceed dosage recommended for adults. There are no adequate data available on efficacy of b.i.d. regimens in children under 9 months of age.

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Nephrolithiasis: A Controllable Disease

JAMES E. LINGEMAN, M.D.
Indianapolis

NEPHROLITHIASIS is a commonly encountered clinical problem and represents a source of significant morbidity in our society. At least 2% of the population will develop a renal calculus during their lifetime. Each year, approximately one person per thousand of population will be admitted to a hospital with the diagnosis of a renal or ureteral calculus. Approximately one-third of patients undergoing an operative procedure for removal of an upper urinary tract stone will eventually go on to lose that kidney due to recurrent nephrolithiasis.

The economic impact of neprolithiasis becomes apparent when one considers the morbidity related to renal colic and surgical lithotomy and the fact that this disease has its peak incidence among men between the ages of 20 and 50.

Fortunately, there has been a tremendous increase in our understanding of the various categories of stone disease and our ability to retard new stone formation. This paper will attempt to present some of the clinically relevant basic concepts involved in the evaluation and management of patients with nephrolithiasis. As in other areas, a successful outcome for any individual patient requires careful evaluation and follow-up.

Nephrolithiasis is about three times as common in men compared to women. Blacks and American Indians have a relatively low incidence of nephrolithiasis. Certain "stone belts" have been noted in the United States and these areas include the Northwest, Southeast and the Southwest. Stones tend to be relatively more common in the hot summer months, presumably due to the lower output of urine secondary to an increased insensible loss of water through sweat. Once an individual has clinically manifested an upper urinary tract calculus, he or she has an approximately 75% chance of forming another stone if no specific treatment is instituted.

Urinary calculus formation cannot occur unless urine is supersaturated. Generally speaking, the milieu for

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crystallization involves a balance between the degree of urinary supersaturation on the one hand and the activity of inhibitors of crystallization on the other. Although normal urine is frequently supersaturated relative to many of the substances that can cause urinary calculi, a majority of stone formers tend to have urine that is more supersaturated than non-stone formers.

Urine is a complex solution and, although we have identified a number of inhibitors of crystallization, we have yet to characterize the entire inhibitory capacity of normal urine. A minority of individuals with nephrolithiasis may have inadequate inhibitors of crystallization but at present it is not feasible to measure these inhibitors as a routine part of the evaluation for nephrolithiasis. Other factors that affect stone growth include urinary pH, urine volume, stasis, and the ability of one crystal to grow upon another (epitaxy). Some of these latter factors can be manipulated to decrease the likelihood of recurrent stone formation.

Upper urinary tract stones are generally asymptomatic until they drop down into a position to cause obstruction to the urinary tract. It is important, therefore, to differentiate between the acute clinical event, which is frequently dramatic and is usually what brings the patient to a physician's attention, and the more long term, insidious process of deposition of crystalline material in the upper urinary tract. We therefore try to stage the activity of an individual's stone disease as it relates to the metabolic evaluation (*Table 1*).

Staging is done by taking a careful history and by reviewing old x-rays. The categories of classification are active, inactive, surgical and indeterminate. Surgical activity does not necessarily imply metabolic activity and frequently when the patient is initially seen it may be difficult to determine whether or not there has been stone growth in the previous year. We generally associate the passage of gravel with metabolic activity. This staging scheme is important because only about a third to half of patients are metabolically active at the time they present with an acute stone event.

TABLE 1
Staging of Stone Disease

Metabolically Active:	New stone formation or stone growth in the past year
Metabolically Inactive:	No new stone formation or growth in the past year
Surgical:	That requiring surgery or manipulation
Indeterminate:	Uncertain about activity or observation for less than one year

Renal colic is a rather characteristic clinical syndrome and will not be discussed in detail here. Renal calculi are almost invariably associated with gross or microscopic hematuria. All patients who are suspected of having renal colic should have an intravenous pyelogram if they are not allergic to contrast material. In addition, a urine culture should be obtained since the consequences of combined urinary infection and obstruction are considerably greater than either alone. If the degree of obstruction from a calculus is not severe and the stone is less than 5 millimeters in diameter, initial close observation may be sufficient. As a general rule, the majority of renal calculi are relatively small and about 80% can be expected to pass spontaneously. However, if symptoms are severe, intervention may be required even when the calculus is small.

Four types of stones may be encountered within the urinary tract. These are calcium containing stones, magnesium ammonium phosphate (struvite) stones, uric acid stones, and stones composed of the amino acid cystine. Calcium-containing stones are by far the most common type of urinary calculus, comprising approximately three-fourths of the upper urinary tract calculi seen in this country (*Figure 1*). Struvite stones and uric acid stones account for most of the remainder. Only about 1% of urinary calculi contain cystine.

The IVP, in addition to assessing the degree of urinary obstruction, can also give clues as to the etiology of the patient's stone disease. Calcium stones tend to be quite radiodense, although even they must be at least 2 millimeters in diameter before they are visible on conventional radiographs. Struvite and cystine stones are considerably less radiodense, but because of their large size they are generally easily seen on radiographs. Struvite is the most common cause of large staghorn or branched renal calculi. Uric acid stones are generally radiolucent and thus not visible on plain radiographs. Nephrocalcinosis (calcification in the renal papillae) suggests the presence of an underlying cause such as renal tubular acidosis, medullary sponge kidney or primary hyperparathyroidsim.

Calcium stone disease: The serum calcium is one of the more closely regulated substances in the extra cellular fluid. Calcium homoeostasis involves a dynamic interaction between bone, the gut and the kidney. About 95% of the body's calcium is stored in bone. The most common abnormality in calcium stone disease is an excessive amount of calcium in the urine (hypercalciuria) and this may result from abnormalities in any of the aforementioned organs involved in calcium homoeostasis. For example, immobilization may lead to a tremendous loss of calcium from bone with hypercalciuria and nephrolithiasis on this basis. In addition, excessive production of parathyroid hormone (primary hyperparathyroidism), defects in the absorption of calcium (leading to excessive absorption), and defects in the renal reabsorption of calcium (leading to net loss of calcium in the urine) are all associated with nephrolithiasis.

The history is usually unrevealing in calcium stone disease. Although the milk-alkali syndrome is a rare cause of nephrolithiasis, this diagnosis can be easily suspected from the history. Patients

with a history of peptic ulcer disease and/or psychosis may be suspected of having primary hyperparathyroidism. Renal tubular acidosis is commonly inherited in an autosomal dominant fashion and thus other family members may be affected. Over-consumption of Vitamin D or ascorbic acid (greater than 1,500 mg per day) has been associated with calcium nephrolithiasis. Any patient with a history of multiple bowel resections or a malabsorption syndrome may be suspected of having intestinal hyperoxaluria, which can lead to calcium oxalate stones (to be discussed in further detail later).

There is a familial tendency toward absorptive hypercalciuria and therefore many of these patients will have close relatives with recurrent nephrolithiasis. With respect to later treatment, dietary habits such as excessive protein or dairy product consumption should be noted. A special note should be made of activities such as jogging and swimming, which may be associated with considerable insensible loss of water and thus excretion of relatively small volumes of urine, even in spite of large intake of liquids.

Systemic diseases associated with calcium nephrolithiasis include sarcoidosis and distal renal tubular acidosis (RTA). All patients should have their serum electrolytes measured, looking for acidosis and hypokalemia which are frequently present with RTA. Once these systemic disorders have been ruled out, attention should be directed to a careful evaluation of the serum calcium. Elevation of the serum calcium in an individual with calcium nephrolithiasis is almost always due to primary hyperparathyroidism. While there are multiple other causes of hypercalemia, most of these diseases are infrequently associated with nephrolithiasis (*Table 2*).

Approximately 5% of all individuals passing a calcium stone will have primary hyperparathyroidism. Conversely, approximately half of patients with primary hyperparathyroidism will initially present with a urinary calculus. The degree of hypercalcemia may be very mild. At least three fasting serum calciums should be obtained as an outpatient when the patient is not acutely ill.

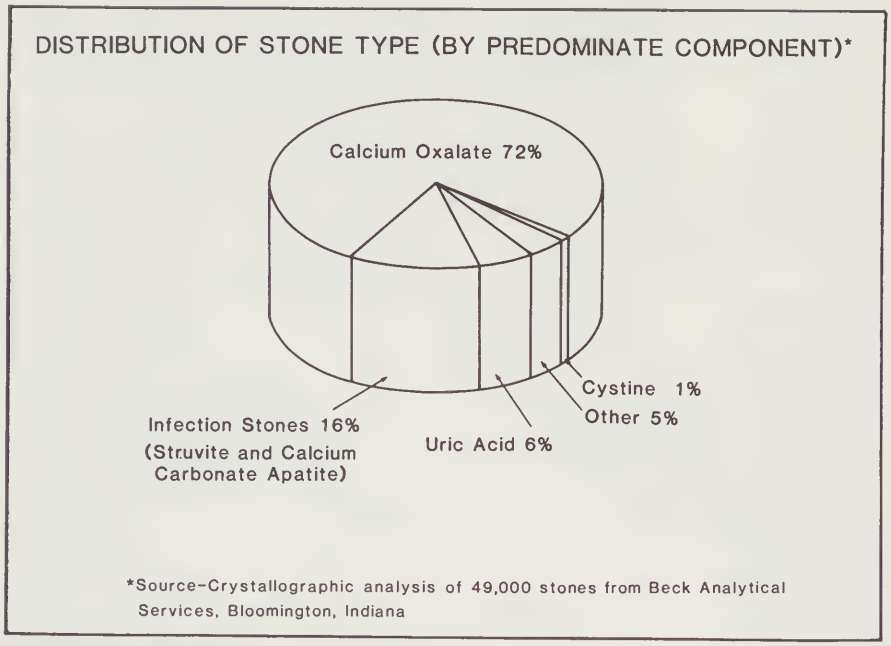


FIGURE 1—Distribution of stone types.

After careful consideration of all the conditions mentioned above, we are still left with approximately 90% of calcium stone formers. Recall now that we are discussing the evaluation only of patients with documented production of stone material or passage of gravel in the previous year.

At this point we should direct our attention to evaluation of urinary chemistries. Although a large number of substances may be tested for in the urine, the majority of significant abnormalities can be identified merely by checking the urine for calcium and uric acid. How the specimens are collected is important. Urinary values of calcium and uric acid are very dependent upon the diet, and therefore these patients should not be evaluated when acutely ill or when hospitalized. (Dietary habits in the hospital in no way reflect an individual's normal consumption.) I would recommend obtaining at least two 24-hour urine specimens under appropriate conditions and more if the results are equivocal in any way.

TABLE 2
Some Diseases That May be Associated with Hypercalcemia and Calcium Stone Formation

Hyperparathyroidism
Vitamin D Intoxication
Sarcoidosis
Multiple Myeloma
Hyperthyroidism
Metastatic Malignant Neoplasms
Leukemia
Lymphoma
Milk-alkali Syndrome

If hypercalciuria is defined as greater than 4 mg of calcium per kilogram of body weight per day, or greater than 140 mg of calcium per gram of urinary creatinine, then approximately 50% of patients with calcium stones will have hypercalciuria. This is the single most common metabolic abnormality in patients with calcium nephrolithiasis. The majority of patients with hypercalciuria have as their primary defect excessive uptake of calcium by the gut, so called absorptive hypercalciuria. In many of these patients this tendency toward excessive calcium absorption is relatively mild and can often be controlled merely by moderately restricting dietary calcium (i.e., elimination of dairy products).

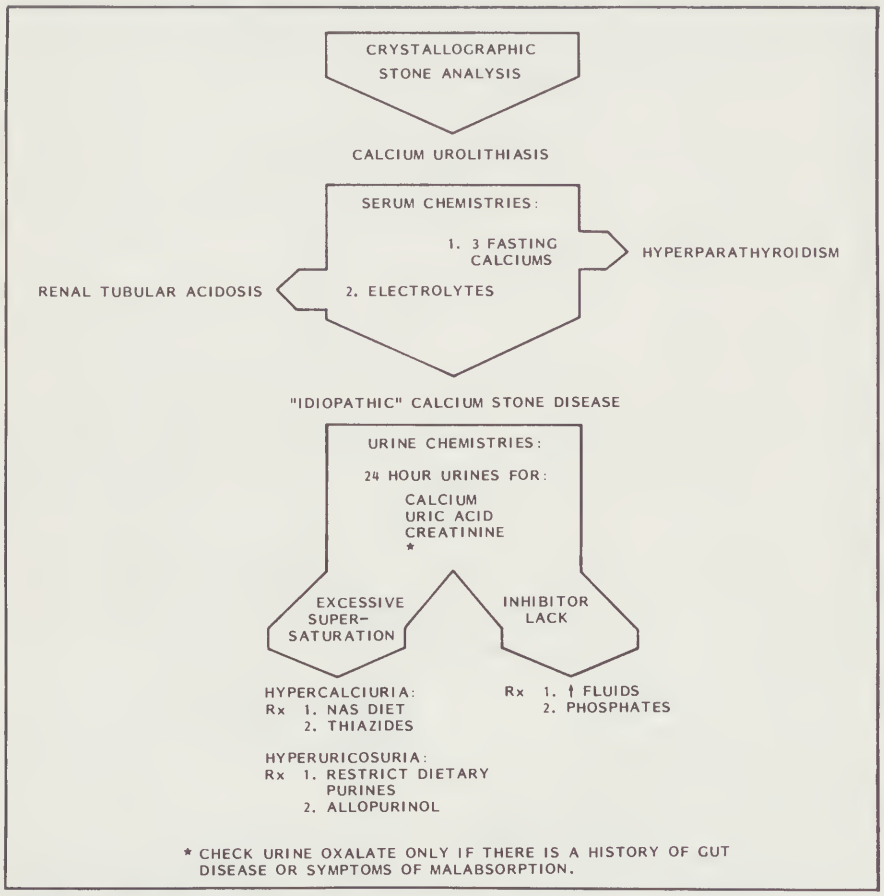


FIGURE 2—Flow sheet for evaluation of calcium nephrolithiasis.

A minority (approximately 20%) of patients with hypercalciuria will have as their primary defect a relative inefficiency of calcium reabsorption in the distal nephron (so called renal leak). In these individuals an excessive amount of calcium is lost in the urine, leading to hypercalciuria. As a consequence of this hypercalciuria, serum calcium levels are slightly diminished, thus stimulating the parathyroid glands to excrete additional PTH. This causes an increased absorption of calcium from the gut through the action of activated vitamin D and also stimulates the distal nephron to reabsorb more calcium. Thus, these patients have calcium urolithiasis, hypercalciuria, and elevated serum PTH, but their serum calcium is *not* elevated.

More than one physician has been misled into thinking that a parathyroid adenoma existed because of the association between calcium urolithiasis and an elevated parathyroid hormone determination. Patients with renal leak hypercalciuria should *not* be subjected to parathyroid surgery, since the elevated PTH is compensatory, and not the cause of the problem.

The association between calcium urolithiasis and uric acid abnormalities was first appreciated several decades ago when epidemiologic data suggested a higher than expected incidence of calcium stone production in individuals suffering from gouty arthritis. This is thought to be related to the concept of epitaxy, which describes the ability of one crystal lattice to grow upon another. In this case, calcium oxalate stones may grow upon seed crystals of uric acid that are present in the urine of individuals with hyperuricosuria. In fact, approximately 20% of calcium stone formers will have hyperuricosuria. Many patients will have hyperuricosuria because of excessive purine consumption.

Hyperoxaluria is unusual in idiopathic calcium stone formers, and is usually associated with gastrointestinal disease of a magnitude to cause significant malabsorption. This is because very little dietary oxalate is normally taken up from the gut because it is bound by calcium in a relatively insoluble and therefore unabsorbable form. However, when significant malabsorption occurs, steatorrhea (fat malabsorption) occurs and binds up whatever calcium may be present in the GI contents. This leaves oxalate free and therefore available for absorption by the gut and eventual excretion in the urine, thus causing hyperoxaluria. One must therefore be alert for this possibility in a patient who has had, for example, multiple small bowel resections for Crohn's disease, or intestinal bypass for obesity.

Only about one-fourth of metabolically active calcium stone formers will not have a clearly defined abnormality in their evaluation. These individuals may have a relative lack of inhibitors in their urine.

Assuming that the patient is not among the small minority with a specific underlying systemic disease that can be directly treated, the treatment should be directed to the urinary chemistries. Hypercalciuria should be treated initially with thiazide diuretics. Trichlormethiazide (Naqua) 2 to 4 mg b.i.d. is preferred as it will reduce urinary calcium excretion with a very low incidence of hypokalemia and hyperuricemia. The somewhat more potent drug Hydrochlorothiazide, 25 to 50 mg b.i.d., may be substituted if Naqua is ineffective or poorly tolerated. Mild sodium restriction (i.e., a no added salt diet) should also be instituted. The urinary calcium should drop approximately 40% or greater on follow-up 24-hour urines. If this is not the case, then the patient is probably consuming an excessive amount of salt which will tend to blunt the hypocalciuric effect of thiazides.

Hyperuricosuria, if present, should be treated by moderate restriction of dietary protein and Allopurinol 300 mg daily.

After treatment has been instituted, a 24-hour urine should be rechecked to be sure that the desired therapeutic effect is being achieved. If hypercalciuria and hyperuricosuria are absent, then the patient should be treated with neutral orthophosphates (1.5 to 2 grams per day in divided doses). Neutral orthophosphates increase the inhibitory activity (mainly pyrophosphate) in urine in addition to reducing urinary calcium excretion. Patients will often experience a laxative effect with the medication when it is instituted, but this is usually short lived. Patients should also be instructed to increase their fluid consumption to attain a goal of 2 to 2.5 liters of urine per day. Data from a number of institutions suggest that the aforementioned regimens are effective in eradicating new stone growth in approximately 90% of patients. The flow diagram (*Figure 2*) summarizes the evaluation and treatment of individuals with calcium nephrolithiasis.

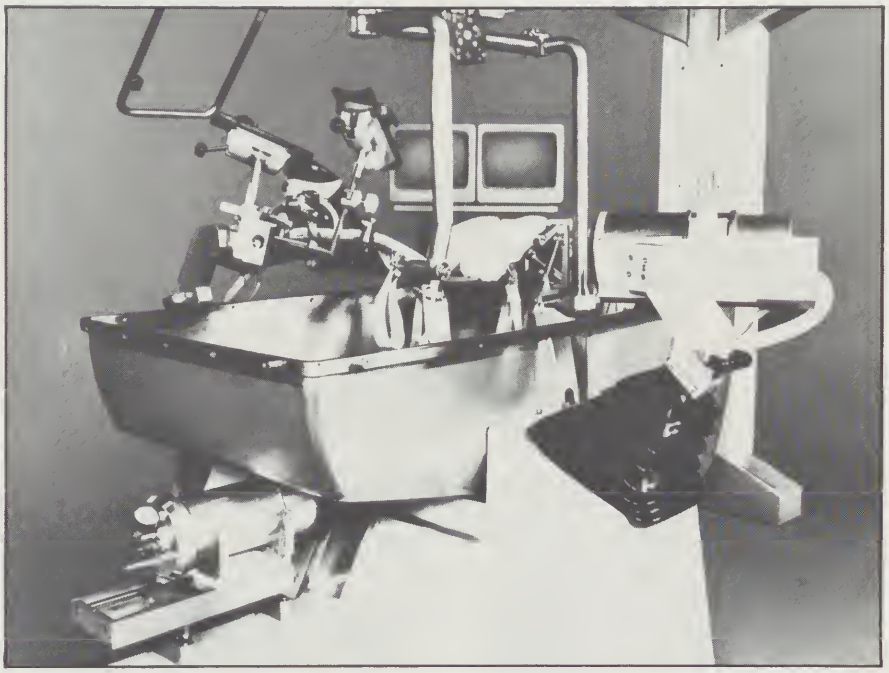


FIGURE 3—Extracorporeal Shock Wave Lithotriptor.

Infection stone disease (struvite): Struvite represents stone material composed of magnesium ammonium phosphate and occurs *only* in the presence of urinary infection with bacteria that produce the enzyme urease. Urease splits urea into ammonium ions, which causes the urine to become very alkaline (pH greater than 7.5). In this situation urine is frequently supersaturated relative to magnesium ammonium phosphate and calcium carbonate apatite, and thus stone formation can occur. This is the only type of stone disease that is more common in women, presumably because of the greater incidence of urinary infection in women. Struvite is also the most common type of stone encountered in individuals at high risk for chronic bacteriuria (such as those persons with urinary diversions, neurogenic bladders, and indwelling catheters). These stones can become quite large and are the most frequent cause of staghorn or branched renal calculi. The most common species of bacteria to liberate urease are *Proteus* and *Providencia*. *E. coli*, on the other hand, never produces urease.

These patients can be recognized because they will almost always have a history of chronic urinary infection, usually with a *Proteus* organism. The urine pH is greater than 7.5. Struvite stones are difficult to treat because the bacteria live deep within the interstices of the calculus material and cannot be eradicated with antibiotic therapy. Therefore, every time the patient's antibiotics are stopped the urine will become re-infected with urea-splitting bacteria and stone growth will continue. In addition, if a stone should drop down into a position to cause obstruction of the urinary tract, the coincident urinary infection can lead to sepsis with serious morbidity and even occasional mortality. Generally speaking, the treatment of this disease is surgical in nature. All of the stone material must be removed from the urinary tract, or else the vicious cycle of chronic bacteriuria and ureolysis cannot be broken. Chronic antibiotic therapy is also required.

Uric acid stone disease: Uric acid lithiasis is known as the "friendly" stone disease. This is because effective medical management exists, which in the great majority of cases will allow for dissolution of uric acid stones. Uric acid is significantly less soluble in acid urine. Therefore, urinary pH is an important factor in uric acid lithiasis, in addition to the absolute amount of uric acid excreted. Uric acid is a breakdown product of purine metabolism and production will be related to dietary protein content, especially meats.

Any disorder associated with increased purine turnover (myeloproliferative disorders, chemotherapy, etc.) will also increase uric acid excretion. Some individuals generate uric acid calculi with normal excretion of uric acid, and in this instance the primary abnormality appears to be excretion of an excessively acidic urine. Approximately 25% of persons with gout will suffer from uric acid lithiasis; conversely, approximately 25% of individuals with uric acid calculi will have gout. Uric acid stones are the only type of calculi that are radiolucent. They present as filling defects on contrast studies and need to be differentiated from blood clots and tumors.

Treatment is threefold, in addition to encouragement of an increased fluid intake. First, a careful diet history is

necessary and attempts should be made to curb excessive protein intake. Secondly, the patient should check the urine pH and sufficient alkali should be given to keep it around seven. Lastly, Allopurinol may be administered to reduce excretion of uric acid. Fortunately, this regimen is highly effective in dissolving uric acid stones, assuming that the patient's clinical circumstances allow sufficient time for intensive medical therapy.

Cystinuria: Cystinuria is a rare autosomal recessive disease caused by a defect in the transport systems for the dibasic amino acids (cystine, ornithine, lysine and arginine). These amino acids are filtered by the glomerulus but not reabsorbed by the nephron and thus are excreted in large amounts in the urine. The disease would be a medical curiosity were it not for the fact that cystine is very insoluble, thus leading to nephrolithiasis. The disease should be suspected in an individual who develops large bilateral stones at an early age. If the disease is suspected, then the amount of cystine should be quantified in a 24-hour urine collection. Homozygotes excrete greater than 500 mg of cystine per 24 hours. Heterozygotes excrete an increased amount of cystine in the urine but do not form stones.

Cystine is somewhat more soluble in alkaline urine and therefore a mainstay of therapy is vigorous alkalinization of the urine. A large intake of liquid is mandatory both day and night. These stones can often be dissolved with aggressive medical therapy including the use of D-penicillamine.

New alternatives to conventional surgery: Two recent developments for the removal of renal calculi may provide an alternative to standard surgical therapy for some patients. Until now, a stone which was too large to pass spontaneously required surgical removal.

The first of these new techniques is the removal of stone material via percutaneous techniques. A percutaneous nephrostomy is established which is then dilated up to a size sufficient to allow the passage of instruments into the kidney through the flank. Stones may be grasped with a forceps and removed if they are small. Larger stones are broken up with either ultrasonic or electrohydraulic lithotripsy and then removed. This procedure is done under local anesthesia and its major advantage is the avoidance of conventional surgery with its prolonged convalescence. Although this is an "invasive" procedure, the risk to the patient and kidney seems to be extremely low. This procedure is presently available through the Department of Urology at the Indiana University Medical Center.

A second promising technique for the non-surgical removal of kidney stones utilizes shock waves which are passed through the skin and soft tissues and are focused on the stone. This technique is totally non-invasive. The patient is immersed in a water bath which allows transmission of shock waves through the body where they are reflected off the stone and cause it to crumble. Approximately 500 shock waves are required per treatment and the stone is pulverized into a very fine gravel which is then spontaneously passed by the patient. This technology is being developed in West Germany, and there have been no significant side effects reported with this therapy thus far. Approximately 90% of patients are stone free and only 2% of patients subsequently required surgery. This device will be coming to the United States for investigational use in the near future and will be available at several institutions including Methodist Hospital in Indianapolis beginning in late 1983 or early 1984 (*Figure 3*).

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A Non-surgical Approach to Preventing Hematogenous Infections in Total Joint Replacements

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Abstract

The results of 1,291 total joint replacements performed in the past 12 years show that 33.3% of total hip infections and 28.6% of all knee infections were of hematogenous origin. Due to the severe complications associated with hematogenous infection, all joint replacement patients undergoing invasive procedures should be treated prophylactically with antibiotics. It also is necessary to recognize the importance of prompt aggressive antibiotic therapy in the eradication of any infection in the total joint replacement patient.

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THE PAST 15 years have seen a rapid progression in the development of total joint replacement as a means of treating many orthopedic afflictions. Patients who have been severely disabled for years are now benefiting from this new technology. As examples, total joint replacement is indicated in those suffering from rheumatoid arthritis, osteoarthritis and ankylosing spondylitis. A recent long-term follow-up that averaged 11.5 years has shown a success rate of 90% in total hip arthroplasty.[1] The vogue that total joint replacement enjoys is reflected in the fact that 1,440 prosthetic implants were done in Indiana in 1981.[2]

The surprisingly favorable results obtained in joint replacement have not been without some equally devastating complications. One of the more troublesome complications has been that of postoperative infection, reported to be as high as 11%.[3]

The dire results of sepsis following prosthetic implantation are twofold. First, many infected joints require removal, thorough debridement and even possible fusion. Financial concern is the other major problem associated with sepsis of the artificial joint. Patients who undergo removal and reimplantation of an infected joint usually are hospitalized for a lengthy four-six week period while they are maintained on IV antibiotics. The cost of treating a patient with an infected joint implant has been estimated to be $11,300 to $25,000.[4,7] The average cost in 1981 for five of our patients who had surgical removal and reimplantation was $23,250.

Most authors categorize infections according to their early or late occurrence following surgery. Numerous preventive measures such as laminar flow ventilation, antibiotic loaded acrylic bone cement and systemic antibiotics have been employed in an effort to reduce the number of early post-operative infections. It is currently thought that one of the means of late infection in prosthetic implants is through the hematogenous spread of bacteria from a distant focus.[4,17,18,19]

The hematogenous spread of bacteria as a causative factor in bacterial endocarditis was recognized in 1930 by Rushton.[9] In recent years the problem associated with bacteremia and artificial heart valve infections has become a major concern to cardiovascular surgeons. The orthopedic community also is cognizant of the fact that prosthetic joint implants are subject to failure due to blood-born infections.

One of the more common modes of bacterial entry into the body is via oral manipulations. Although the incidence of positive blood cultures vary according to sampling time, blood volume extracted and culturing techniques, as many as 85% of patients have shown positive blood cultures following dental extractions.[10]

Numerous other authors have reported bacteremias following more invasive oral procedures. Korn and Schaffer found an average of 69% positive blood cultures in routine root planings, gingivectomies with root planing and gingivectomies without root planing.[11] Rogosa reported an incidence of bacteremia in 88% of cases involving periodontal procedures.[12] Even rather minor dental procedures have been shown to cause transient bacteremias. These include teeth

brushing,[13] the use of oral irrigation devices[14] and dental flossing.[15] However, the duration of the bacteremias has been shown to be 15 minutes or less with these minor manipulations. Generally, the duration of bacteremias in the blood is related to the number of bacteria introduced through the wound and the efficiency of the host's immune system.

A review of the current literature has failed to show any conclusive proof that bacteremias elicited by oral manipulations eventually may be responsible for late sepsis in prosthetic joints. A publication by Rubin, Salvati and Lewis[16] in 1976, which reviewed three case histories, suggested an association between dental work and subsequent seeding of hip prostheses.

This article presents our data on infections that have occurred in 1,780 total hip and knee replacements performed over the past 12 years. The purpose of this paper is to make the reader more conscious of the potential catastrophic problems associated with late hematogenous infections in total joint replacement and the need for aggressive antibiotic therapy. We also hope the clinician will be more aware that, although not proven yet, dental procedures may be a source of late sepsis and therefore the patient should be treated prophylactically before any oral manipulations are performed.

TABLE 1

Hematogenously Infected Total Hip Replacements

Patient's Initials	Months Post-Operative when prosthetic implant became infected	Origin of infection	Organism isolated from both original infection and prosthetic implant
* C.W.	13,16	Knee	*Staph aureus*
C.S.	12	Hand	*Staph epi*
J.W.	31	Ankle	*Alpha-Streptococcus*
* E.P.	18,18	Finger	*Staph aureus*
F.G.	87	Toe	*Staph aureus*

* Denotes bilateral hip infection.

Results

From 1969 through 1981, 1,291 total hip arthroplasties and 489 total knee replacements have been performed. Twenty-one patients acquired infections from hip procedures. This represents an overall infection rate of 1.63%. Of these 21 infections, seven (33.3%) were infections that developed distantly in the body and subsequently spread hematogenously to infect the prosthesis. If the seven infections of hematogenous origin are excluded, the infection rate from our hip procedures is 1.08%. The number of infected knees totaled seven, thus giving an overall rate of infection of 1.43%. There were two infections (28.6%) of hematogenous origin encountered in these seven knee replacement patients. Eliminating the two hematogenous infections shows an infection rate in our knee replacements of 1.02%.

Table 1 presents the data from our hip arthroplasty patients who contracted infections of hematogenous origin. *Table 2* presents the same information for patients with total knee replacements.

The causative organism was isolated at both the distant focus and in the prosthesis in all nine hematogenous infection cases. *Staphylococcus aureus* was involved in five infections. The remaining four infections involved one case each of *Staphylococcus epidermidis, Alpha-Streptococcus, E. coli* and *Group D Streptococcus*. None of the infections involved multiple organisms.

Discussion

The technique of total joint replacement has become a rather common procedure. As the number of patients carrying prosthetic joints has increased, the awareness that they must be protected has become more obvious. As shown in the data presented, 33.3% of our hip infections and 28.6% of our knee infections were caused by an infection that did not originate at the prosthetic implantation site.

Any nidus of infection that occurs within the body has the potential of seeding the prosthesis if left untreated. Due to the catastrophic complications of hematogenous infection, both to the patient's health and financial status, we feel that there is a definite need for aggressive antibiotic management in any infection found in total joint replacement patients. If appropriate antibiotic therapy is initiated early, many patients may be spared the troublesome consequences associated with hematogenous infections.

Of particular concern is the problem associated with oral manipulations which may seed the prosthetic joint. Although

TABLE 2

Hematogenously Infected Total Knee Replacements

Patients Injury	Months P.O. to Infection	Origin of Infection	Organism
H.H.	30	Bladder	*E. coli*
E.H.	68	Toe	*Group D Streptococcus*

the relationship between dental manipulations and bacteremias has been well documented, our current review of the literature failed to find any study showing conclusive proof of dental work causing prosthetic joint infections. However, due to the evidence of hematogenous infections from various foci throughout the body, it is our opinion that bacteremias caused by oral manipulations may also be a serious threat to the success of total joint replacement.

It is therefore our recommendation that all patients with prosthetic joint implants be treated with prophylactic antibiotics for all dental work including any type of routine professional cleaning that may likely cause bleeding. Despite the fact that other authors have set up various prophylactic antibiotic regimens for total joint replacement patients, we have been roughly following the guidelines recommended by the American Heart Association[16] (*Table 3*). This table has been designed for the prevention of bacterial endocarditis and prosthetic heart valve infections but it is not necessarily applicable to total joint replacement patients.

The problem we have encountered is that all but one of the causative organisms in our hematogenous infections have been resistant to penicillin. Therefore, we feel a broader spectrum antibiotic is necessary. The use of cephalosporins on the same time schedule as *Table 3* appears to be the most advantageous treatment for the patient carrying a prosthetic implant. Finally, present data on oral irrigation devices are not sufficient at this time to make any recommendations with regard to their safety and thus caution is also advised in their use.

TABLE 3

Prophylactic Treatment as Outlined by the American Heart Association

Penicillin	1) Parenteral - Oral	Aqueous crystalline penicillin G (1,000,000 units intramuscularly) mixed with procaine penicillin G (600,000 units intramuscularly). Administer drug ½ to 1 hour before the dental manipulation and then give penicillin V 500 mg orally every 6 hours for 8 doses.*
	2) Oral	Penicillin V 2 gm orally ½ to 1 hour previous to the procedure followed by 500 mg orally every 6 hours for 8 doses.*
Erythromycin	(For those allergic to Penicillin) 1) Oral	Erythromycin (1 gm orally 1½ to 2 hours prior to the procedure and then 500 mg orally every 6 hours for 8 doses.*

* In certain cases where delayed healing is evident, the need for additional drug therapy may be indicated.

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Cost-effective Cancer Screening

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Abstract

Almost all cancer, the second leading cause of death in the United States, can be cured if diagnosis is made before metastases.

For selected asymptomatic people at high risk, screening for prevalent cancers with a long detectable preclinical phase has shown reduction in mortality and cost savings.

The 1980 American Cancer Society screening guidelines for Pap smears, stool guaiac tests, mammography, proctoscopy, and digital rectal exams are proven.

Patients with symptoms need other recommendations after an examination by their physician.

CANCER, the second leading cause of death in the United States, will strike two of three families, one of four women, and one of five men. Cancer is slightly more common in women, because men do not live long enough. Men die of heart disease and strokes at a younger age before developing cancer as frequently as women do. Cancer kills 1,000 Americans every day, one every 90 seconds, and more people than all the wars this nation has fought.

In spite of higher mortality, the money spent on cancer research is trivial compared to billions of dollars spent on national defense. According to recent estimates, one cancer death costs an average of $55,000. If 41% of new cancer patients live five years, about $15 billion will be saved.[1]

Regional lymph node metastases decrease five-year survival rates by at least half in almost every cancer studied. However, with only a few exceptions, almost all tumors can be cured if diagnosis and treatment are accomplished before the cancer spreads.

Pending the importance of early diagnosis (and treatment), the American Cancer Society (ACS) has strongly recommended cost-effective cancer screening guidelines for selected asymptomatic people at high risk.

People fail to seek cost-effective cancer screening because of denial of future illness, ignorance, cost, inconvenience, modesty, fear of discomfort, fear of findings, apathy, and reluctance to sacrifice the pleasures of the moment for intangible benefits decades away. A good physician-patient relationship is most important to decrease mortality from cancer. It is entirely within the ethics of good medicine to remind the mother of a young child patient that she is overdue for her Pap smear.[2]

Cancers favorable for screening have a high prevalence in those screened (high risk), long detectable preclinical phase, and effective treatment. A good screening test has high sensitivity and specificity, minimal discomfort and cost, and is readily available.[3]

In 1980 the ACS revised the guidelines because of new data indicating that old recommendations were not cost-effective or were poorly tolerated.[4]

The most cost-effective cancer screening test, the cervical Pap smear, has proven reduction in invasive cervical cancer and mortality[5] while the incidence of cervical cancer is rising.[6,7]

The epidemic of cervical intraepithelial neoplasia (CIN) parallels the epidemic of gonorrhea, suggesting a veneral cause in young women.[8] The average age of CIN victims at Bowman Gray Medical School in Carolina is nineteen.[9]

In British Columbia, Pap smears have resulted in paradoxical increases in Stages II and III because occult endocervical cancer is not often detected, resulting in higher stages of bulky endocervical cancer.[10] Of utmost importance is endocervical sampling with saline-soaked swabs, as well as sampling the ectocervix.[11]

The American College of Obstetricians and Gynecologists was quick to point out that the ACS 1980 guidelines for Pap smears every three years apply only to those without high risk—sex before age 20, multiple partners or pregnancy before age 20.[9] The ACS agrees with the Canadian Walton Report that annual Pap smears are needed for those women with many partners or sex before age 20.[10] Additional categories of high risk may be women with a promiscuous sex partner and women with a history of venereal disease, especially Herpes genitalis.

The most common female invasive pelvic malignancy in the United States is endometrial cancer. The cost of total population screening for endometrial cancer is prohibitive and unnecessary, because endometrial cancer does not occur without one of the risk factors. Hence, monitoring is recommended only for women with a risk factor.[12] Endometrial cancer is associated with the prolonged stimulation by estrogens unopposed by the protective effect of progesterone. Because androstenedione is converted to estrogen by fatty tissue, obese women have a higher level of circulating estrogen[13] and increased risk of endometrial cancer—so do women with late menopause, menstrual irregularity, infertility, adenomatous hyperplasia, postmenopausal or abnormal uterine bleeding, estrogen effect on Pap smear five years or more after menopause, and exogenous postmenopausal estrogens.[14] These risk factors indicate annual endometrial sampling for those asymptomatic postmenopausal women.[12] Women with abnormal or postmenopausal uterine bleeding need a "D and C" to exclude endometrial

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TABLE[20]

Trade Names of Fecal Occult Blood Tests

Hemoccult and Hemoccult II
Smith Kline Diagnostics, Sunnyvale, Calif.

Hema-Chek
Ames Division, Marion Labs, Elkhart, Ind.

Quik-Cult
Laboratory Diagnostics, Morganville, N.J.

ColoScreen
Helena Laboratories, Beaumont, Tex.

Colo-Rect
Roche Laboratories, Nutley, N.J.

cancer.

An American tragedy, lung cancer caused by cigarette smoking, will kill more than 100,000 people annually, making it the leading cause of cancer death. At least three controlled, prospective, clinical trials show no decrease in mortality for asymptomatic smokers randomized since 1971 to annual chest x-rays and sputum cytologies compared to those randomized to no screening.[15,16,17,18,19] Hence, the only cost-effective way to decrease mortality from lung cancer, espohagus cancer, mouth cancer, pharynx cancer, larynx cancer, bladder cancer, lip cancer, heart attacks and emphysema is to stop smoking.

The most common internal malignancy and the second leading cause of cancer death in the United States, colorectal cancer, has a long preclinical phase detectable by stool guaiac test (*Table*)[20] and digital rectal exam. Earlier diagnosis with stool guaiac tests for occult blood after a meat-free diet is shown by at least two studies.[21,22]

The probability of occult bleeding from an adenomatous polyp or small tumor is increased by a high-residue, high-fiber diet. Since animal meat contains hemoglobin, making the test falsely positive, it should not be eaten for at least 48 hours prior to stool collection. Similarly, aspirin and ascorbic acid will decrease the accuracy.[20]

At the Kaiser Foundation, 5,000 asymptomatic older people randomized to annual digital rectal exam for 11 years had statistically significant lower mortality from colorectal cancer.

At least three independent but uncontrolled reports suggest that sigmoidoscopy allows early detection, especially of premalignant polyps, and decreases mortality of colorectal cancer.[22,23,24]

Also detectable by digital exam, 75% of prostate cancers originate in the posterior lobe. For asymptomatic people, the ACS recommends annual rectal exam after age 40, sigmoidoscopy every three to five years after two normal exams after age 50, and annual stool guaiac tests after age 50.[4]

After trauma, the leading cause of death in postpubertal women under 40 is breast cancer.[25] For American women ages 35-54, cancer is the leading cause of death. Specifically, breast cancer is the leading cause of death in each 20-year age group between 15 and 74.[26]

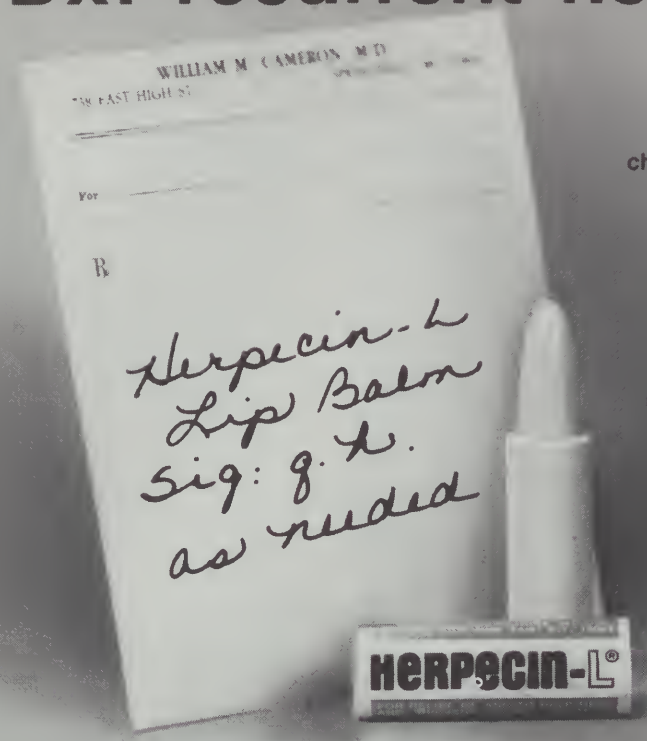
Minimal, nonpalpable breast cancer detected by mammography and treated by lumpectomy and irradiation has a 10-year survival of 95%.[25] The Health Insurance Program of New York has demonstrated that mammography, self-exam, and physician exam could reduce breast cancer mortality by one-third. The ACS, as well as the Canadian Task Force on the Periodic Health Exam, recommend annual mammography for asymptomatic women over 50. Those with a mother or sister suffering breast cancer should begin mammography at a younger age.[27]

There are three important warnings regarding cancer screening. First, the ACS recommendations apply only to asymptomatic people. Patients with symptoms need other recommendations after an exam by their physician. Second, the absence of high risk factors is no reason to neglect screening.[28] Finally, there is only one thing worse than having advanced cancer: That is having cancer and not knowing it.

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CONTACT URTICARIA

Clinical Notes

JERE D. GUIN, M.D.
Kokomo

A YOUNG HOUSEWIFE developed swelling of the hands with an urticarial eruption suddenly when cleaning uncooked shrimp. She had an atopic history and had a previous history of hives after eating shrimp.

A one-year-old child with chronic urticaria developed severe local and generalized urticaria five minutes after patch testing to a perfume mixture, and improved dramatically on avoidance of such materials.

Urticaria developed around the mouth in 18/20 children in a kindergarten class exposed to mayonnaise containing benzoic and sorbic acids as preservatives. It persisted only 30-60 minutes and was reproducible, but was not abolished by antihistamines.[1]

A woman visited a hairdresser to have coloring treatments on her hair that required use of a bleach. About 10 minutes following application of a bleach containing a booster her face became red and swollen, and she lost consciousness.[2]

All of the above case histories are authentic and all are examples of contact urticaria. This phenomenon is a grouping of urticarial eruptions that occur locally and sometimes systemically following contact exposure to some exciting agent. The first two are examples of immunologic contact urticaria, while case 3 represents a form of the nonimmunologic category and case 4 the uncertain category. Case 1 is likely caused by I_gE antibodies and is part of the atopic state. It is due to a protein antigen, and it is not particularly rare in food handlers.[3] It also can be the cause of flares in some persons with chronic (atopic) hand eczema.[4] In the latter group it is often necessary to test them to the foods on recently healed skin to obtain a positive result.[4]

Stage 1 reactions are those with only urticaria following contact, angioedema occurs in Stage 2, asthma in Stage 3, and an anaphylactoid reaction in Stage 4 reactions.[5] Case 2 might be classed as Stage 2. The antibody involved is less certain, but it may also be I_gE.

Nonimmunologic contact urticaria was reviewed recently by Lahti,[6] and it represents direct histamine release (e.g., cinnamic aldehyde), vasodilatory effects (e.g., benzoic acid where histamine is not involved) or a similar mechanism. The timing of the response depends on the vehicle as well as the chemical in question, and one must proceed with caution in interpreting test results. Hives following exposure to nettles, caterpillars and Portugese man-of-war involve a similar pharmacologic mechanism and often are included in classifications of "contact urticaria" although the exposure breaks the skin.

The last case is classed as one of uncertain mechanism by the experts who can't make up their minds. It follows use of ammonium persulfate (used as a booster for a bleach to produce platinum blond color). Negative passive transfer tests and reactions on what is ostensibly first exposure argue against its being allergic, but failure to reproduce it in controls is against direct histamine release. It may represent an idiosyncratic toxic effect or allergy that is not I_gE-mediated along with an inaccurate history.

In treating contact urticaria, antihistamines may help those cases where histamine is involved, but identification of the causative agent and avoidance of it are important in any event.[8] Testing is tricky, so anyone contemplating such would do well to read review articles on the subject first.[5,6,7,9]

Correspondence: 804 S. Berkley Road, Kokomo, Ind. 46901.

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CONTRAINDICATIONS: ASPIRIN: Allergic or idiosyncratic reactions to aspirin or related compounds. MEPROBAMATE: Acute intermittent porphyria; allergic or idiosyncratic reactions to meprobamate or related compounds, e.g. carisoprodol, mebutamate, or carbromal.
WARNINGS: ASPIRIN: Use salicylates with extreme caution in patients with peptic ulcer, asthma, coagulation abnormalities, hypoprothrombinemia, vitamin K deficiency, or those on anticoagulants. In rare instances, aspirin in persons allergic to salicylates may result in life-threatening allergic episodes.
MEPROBAMATE: DRUG DEPENDENCE: Physical and psychological dependence, and abuse have occurred.
Chronic intoxication from prolonged ingestion of, usually, greater than recommended doses is manifested by ataxia, slurred speech, and vertigo. Therefore, carefully supervise dose and amounts prescribed and avoid prolonged use, especially in alcoholics and others with known propensity for taking excessive quantities of drugs. Sudden withdrawal after prolonged and excessive use may precipitate recurrence of preexisting symptoms, e.g. anxiety, anorexia, or insomnia, or withdrawal reactions, e.g., vomiting, ataxia, tremors, muscle twitching, confusional states, hallucinosis, and, rarely, convulsive seizures. Such seizures are more likely in persons with CNS damage or preexistent or latent convulsive disorders. Onset of withdrawal symptoms occurs usually within 12 to 48 hours after discontinuation; symptoms usually cease within next 12-to-48-hour period. When excessive dosage has continued for weeks or months, reduce dosage gradually over 1 to 2 weeks rather than stop abruptly. Alternatively, a short-acting barbiturate may be substituted, then gradually withdrawn.
POTENTIALLY HAZARDOUS TASKS: Warn patients meprobamate may impair mental or physical abilities required for potentially hazardous tasks, e.g., driving or operating machinery.
ADDITIVE EFFECTS: Since CNS-suppressant effects of meprobamate and alcohol or meprobamate and other psychotropic drugs may be additive, exercise caution with patients taking more than one of these agents simultaneously.
USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during first trimester of pregnancy, has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of childbearing potential may be pregnant at time of institution of therapy should be considered. Advise patients if they become pregnant during therapy or intend to become pregnant to communicate with their physicians about desirability of discontinuing the drug.
Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breastfeeding patients, consider the drug's higher concentrations in breast milk as compared to maternal plasma levels.
USAGE IN CHILDREN: Keep preparations with aspirin out of reach of children. Equagesic®-M is not recommended for patients 12 years of age and under.
PRECAUTIONS: ASPIRIN: Salicylates antagonize uricosuric activity of probenecid and sulfinpyrazone. Salicylates are reported to enhance hypoglycemic effect of sulfonylurea antidiabetics.
MEPROBAMATE: Use lowest effective dose, particularly in elderly and/or debilitated, to preclude over-sedation. Meprobamate is metabolized in the liver and excreted by the kidney; to avoid excess accumulation exercise caution in its use in patients with compromised liver or kidney function. Meprobamate occasionally may precipitate seizures in epileptic patients. It should be prescribed cautiously and in small quantities to patients with suicidal tendencies.
ADVERSE REACTIONS: ASPIRIN: May cause epigastric discomfort, nausea, and vomiting. Hypersensitivity reactions, including urticaria, angioneurotic edema, purpura, asthma, and anaphylaxis may rarely occur. Patients receiving large doses of salicylates may develop tinnitus.
MEPROBAMATE: CNS: Drowsiness, ataxia, dizziness, slurred speech, headache, vertigo, weakness, paresthesias, impairment of visual accommodation, euphoria, overstimulation, paradoxical excitement, fast EEG activity.
GI: Nausea, vomiting, diarrhea.
CARDIOVASCULAR: Palpitation, tachycardia, various forms of arrhythmia, transient ECG changes, syncope, hypotensive crisis.
ALLERGIC OR IDIOSYNCRATIC: Milder reactions are characterized by itchy, urticarial, or erythematous maculopapular rash, generalized or confined to the groin. Other reactions include leukopenia, acute nonthrombocytopenic purpura, petechiae, ecchymoses, eosinophilia, peripheral edema, adenopothy, fever, fixed drug eruption with cross-reaction to carisoprodol, and cross-sensitivity between meprobamate/mebutomate and meprobamate/carbromal. Rare, more severe hypersensitivity reactions include hyperpyrexia, chills, angioneurotic edema, bronchospasm, oliguria, and anuria. Also, anaphylaxis, exfoliative dermatitis, stomatitis, and proctitis. Stevens-Johnson syndrome and bullous dermotitis have occurred.
HEMATOLOGIC (SEE ALSO "ALLERGIC OR IDIOSYNCRATIC"): Agranulocytosis, aplastic anemia have been reported, although no causal relationship has been established, and thrombocytopenic purpura.
OTHER: Exacerbation of porphyric symptoms.
DOSAGE AND ADMINISTRATION: Usual dose is one or two tablets, 3 to 4 times daily as needed for relief of pain when tension or anxiety is present. Not recommended for patients 12 years of age and under.
OVERDOSAGE: Treatment is essentially symptomatic and supportive. Any drug remaining in the stomach should be removed. Induction of vomiting or gastric lavage may be indicated. Activated charcoal may reduce absorption of both ospirin and meprobamate. Aspirin overdosage produces usual symptoms and signs of salicylate intoxication. Observation and treatment should include management of hyperthermia, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions. Suicidal attempts with meprobamate have resulted in drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse. Some suicidal attempts have been fatal. The following data, reported in the literature and from other sources, are not expected to correlate with each case (considering factors such as individual susceptibility and length of time from ingestion to treatment), but represent usual ranges reported. Acute simple overdose (meprobamate alone): Death has been reported with ingestion of as little as 12 gram meprobamate and survival with as much as 40 gram.
BLOOD LEVELS:
0.5-2.0 mg percent represents usual blood-level range after therapeutic doses. The level may occasionally be as high as 3.0 mg percent.
3-10 mg percent usually corresponds to findings of mild-to-moderate symptoms of overdosage, such as stupor or light coma.
10-20 mg percent usually corresponds to deeper coma, requiring more intensive treatment. Some fatalities occur.
At levels greater than 20 mg percent, more fatalities than survivals can be expected.
Acute combined overdose (meprobamate with other psychotropic drugs or alcohol): Since effects can be additive, history of ingestion of a low dose of meprobamate plus any of these compounds (or of a relatively low blood or tissue level) cannot be used as a prognostic indicator.
In cases of excessive doses, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Any drug remaining in stomach should be removed and symptomatic treatment given. Should respiration or blood pressure become compromised, respiratory assistance, CNS stimulants, and pressor agents should be administered cautiously as indicated. Diuresis, osmotic (mannitol) diuresis, peritoneal dialysis, and hemodialysis have been used successfully in removing both aspirin and meprobamate. Alkalinization of the urine increases excretion of salicylates. Careful monitoring of urinary output is necessary, and caution should be taken to avoid overhydration.
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CANCER CORNER

This month we are featuring an article, "The Potential Impact of DRGs: A Major Hindrance to Our Clinical Research Efforts," written by David A. Johnson, M.B.A., president of Deaconess Hospital, Evansville, Ind. (It was published in the January-February 1983 issue of the "Cancer Program Bulletin," newsletter of the Association of Community Cancer Centers. The article is reprinted below with permission of the author, who is immediate past president of ACCC.)

ACCC is a national organization founded in 1974 by community private practicing physicians and hospital administrators. The association's purpose is to increase the involvement and understanding of community cancer care professionals at all levels of the National Cancer Program.

Many community hospitals throughout the country are becoming involved with federal programs being offered to community cancer development. One recent opportunity, the Community Clinical Oncology Program, provides community physicians the mechanism to become involved with clinical research. Mr. Johnson discusses the effect that proposed legislation for hospital reimbursement may have on cancer program development. He also provides information that may give the physician a better understanding of such proposed legislation.

Following is Mr. Johnson's article:

For the nine years that span the time since I first joined the ACCC, one of the major issues which has continually surfaced as an important agenda is the prospect of clinical research efforts in community hospitals. Now, with the advent of the Community Clinical Oncology Program (CCOP) and other similar programs it appears that this interest of many association members is about to be met.

Yet, at the same time, some major changes in the entire health care reimbursement picture may seriously jeopardize clinical research efforts in any setting. The new tax legislation, TEFRA, signed into law only last September, brings changes in reimbursement structures that will make hospitals significant money losers. So, while many hospital administrators have eagerly pursued the CCOP for its "marketing potential," this new act could make administrators perceive it as an unnecessary burden.

The new legislation is the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). This 383-page law includes provisions for the immediate use of average case cost payment for all Medicare patients, development of a plan for prospective reimbursement of all health care, elimination of allowances for bad debts, elimination of the nursing differential, changes in hospital-based physician reimbursement, elimination of the private room subsidy, and the first reimbursement for hospice.

In the few weeks subsequent to its passage, the Department of Health and Human Services moved swiftly to enact regulations on many of these provisions. More regulations are in the works, including the hospice reimbursement regulations.

But let us just look at the implications of the new "average case cost payment" approach. A case-mix rating system using 1980 data has already established each hospital's case payment amount. Additional expenditures for Medicare patients will be discouraged to keep costs within the case cost allowed. Most hospitals have experienced an increase in patient acuity over the last several years, so costs of care have increased since 1980, which the TEFRA uses as the "base year" for its computations. All of this probably means that more hospitals will try to reduce Medicare costs in every way possible. While the average cost is institution-specific, the average case cost methods will surely limit new services, drugs, procedures and tests associated with clinical research.

Thus, activities which are required for clinical research protocols and which currently add to the usual patient bill may cause patient costs to exceed fixed case limits. If so, hospitals will quickly lean toward reducing these expensive exceptions.

At the same time, with the nation's poor economic condition, most hospitals are having major increases in bad debts and charity cases. Hospitals in the South and West are especially burdened with the "unsponsored patient," that is, foreign nationals with no insurance or government support. Other areas are having growing numbers of unemployed with no insurance.

During the next few weeks, Congress will be generating legislation to move from fixed rate payment to a prospective payment system based on "disease related groups" (DRGs). DRGs are bad debt provisions for medical research. DRGs have been tested in New Jersey for three years. The results of that experiment are inconclusive, although some analysts suggest that they impose the same type of administrative burden that PSRO and other utilization review programs added.

DRGs provide a single non-negotiable rate of reimbursement for treatment of a patient with a specific disease based upon an average rate for the entire state or region. Rates may be adjusted regionally to compensate for differences in salaries and other costs.

It would be tragic if the hard work of the clinical research community and the progress being made in that area were accidentally shut down by this legislation. But, it could happen.

We should consider both regulatory and legislative actions, although the latter are more likely to be effective than the former. We will strive to develop some specific recommendations to the membership for our legislative push at the Ninth National Meeting.

There is no doubt that this is a critical issue on which we will need your help in the next few months. Moreover, I believe that this is just the beginning of a new era of issues which will require the attention and concern of a united and informed membership. ACCC will continue to serve all of our institutions and programs if it tackles reimbursement, hospice and other clinical practice issues head on. With your support, we can make a difference!

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—G. Boss, MD et al

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—Edward W. Holmes, Jr, M.

For information on adverse reactions, warnings, etc, please see brief summary of prescribing information below.

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3. treatment of patients with recurrent uric acid stone formation;

4. prophylactic treatment to prevent tissue urate deposition, renal calculi, or uric acid nephropathy in patients with leukemias, lymphomas and malignancies who are receiving cancer chemotherapy with its resultant elevating effect on serum uric acid levels.

CONTRAINDICATIONS: Use in children with the exception of those with hyperuricemia secondary to malignancy. The drug should not be employed in nursing mothers.

Patients who have developed a severe reaction to Zyloprim should not be restarted on the drug.

WARNINGS: ZYLOPRIM SHOULD BE DISCONTINUED AT THE FIRST APPEARANCE OF SKIN RASH OR ANY SIGN OF ADVERSE REACTION.

In some instances a skin rash may be followed by more severe hypersensitivity reactions such as exfoliative, urticarial and purpuric lesions as well as Stevens-Johnson syndrome (erythema multiforme) and very rarely a generalized vasculitis which may lead to irreversible hepatotoxicity and death.

A few cases of reversible clinical hepatotoxicity have been noted and in some patients asymptomatic rises in serum alkaline phosphatase or serum transaminase have been observed. Accordingly, periodic liver function tests should be performed during the early stages of therapy, particularly in patients with pre-existing liver disease.

Patients should be alerted to the need for due precautions when engaging in activities where alertness is mandatory.

Occasional cases of hypersensitivity have been reported in patients with renal compromise receiving thiazides and Zyloprim concurrently. For this reason, in the clinical setting, such combination should be administered with caution.

In patients receiving Purinethol® (mercaptopurine) or Imuran® (azathioprine), the concomitant administration of 300-600 mg of Zyloprim per day will require a reduction in dose to approximately one-third to one-fourth of the usual dose of mercaptopurine or azathioprine. Subsequent adjustment of doses of Purinethol or Imuran should be made on the basis of therapeutic response and any toxic effects.

Usage in Pregnancy and Women of Childbearing Age:

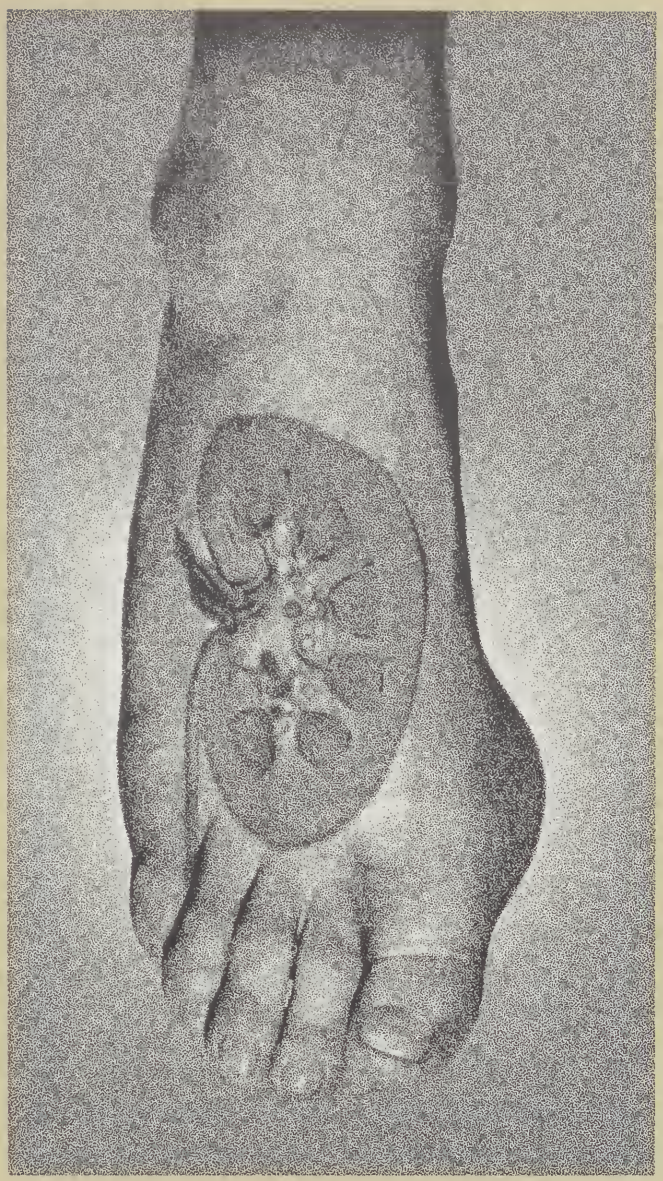
Zyloprim should be used in pregnant women or women of childbearing age only if the potential benefits to the patient are weighed against the possible risk to the fetus.

PRECAUTIONS: Some investigators have reported an increase in acute attacks of gout during the early stages of allopurinol administration, even when normal or subnormal serum uric acid levels have been attained.

It has been reported that allopurinol prolongs the half-life of the anticoagulant, dicumarol. This interaction should be kept in mind when allopurinol is given to patients already on anticoagulant therapy, and the coagulation time should be reassessed.

A fluid intake sufficient to yield a daily urinary output of at least 2 liters and the maintenance of a neutral or, preferably, slightly alkaline urine are desirable to (1) avoid the theoretic possibility of formation of xanthine calculi under the influence of Zyloprim therapy and (2) help prevent renal precipitation of urates in patients receiving concomitant uricosuric agents.

Patients with impaired renal function require less drug and should be carefully



e most important therapeutic measure is
e dministration of a drug which will block
a: synthesis. The agent available at present is
urinol (Zyloprim . . .) which is very effective
of low toxicity."[3]

—Alfred Jay Bollet, MD

. allopurinol treatment appears to retard the
ression of renal dysfunction."[4]

—T. Gibson, MD et al

LOW INCIDENCE OF TOXICITY

hical experience with allopurinol suggests
most patients tolerate this drug well—a
ng strongly supported by our data.
esired or unintended effects of therapy
e reported in only 1.8% of 1835 consecutive
ients."[5]

—G. T. McInnes, MD

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ed during the early stages of Zyloprim administration and the drug withdrawn
sed abnormalities in renal function appear.

ats with severely impaired renal function, or decreased urate clearance, the
or oxipurinol in the plasma is greatly prolonged. Therefore, a dose of 100 mg
or 300 mg twice a week, or perhaps less, may be sufficient to maintain
e xanthine oxidase inhibition to reduce serum urate levels. Such patients
e treated with the lowest effective dose, in order to minimize side effects.

iculocytosis has appeared in some patients.

determination of liver and kidney function and complete blood counts should
rmed especially during the first few months of therapy.

RSE REACTIONS:

logic: Because in some instances skin rash has been followed by severe
nsitivity reactions, it is recommended that therapy be discontinued at the
of rash or other adverse reaction (see WARNINGS). Skin rash, usually
apular, is the adverse reaction most commonly reported. The incidence of
may be increased in the presence of renal disorders.

ive, urticarial and purpuric lesions, Stevens-Johnson syndrome (erythema
me) and toxic epidermal necrolysis have also been reported.

ses of alopecia with and without accompanying dermatitis have been
d.

patients with a rash, restarting Zyloprim (allopurinol) therapy at lower doses
n accomplished without untoward incident.

testinal: Nausea, vomiting, diarrhea, and intermittent abdominal pain have
ported.

Rare cases of granulomatous hepatitis and hepatic necrosis have been
d.

r: There have been rare instances of a generalized hypersensitivity vasculitis
tizing angiitis which have led to irreversible hepatotoxicity and death.

Hematopoietic: Agranulocytosis, anemia, aplastic anemia, bone marrow depression, leukopenia, pancytopenia and thrombocytopenia have been reported in patients, most of whom received concomitant drugs with potential for causing these reactions. Zyloprim has been neither implicated nor excluded as a cause of these reactions.

Renal: Rare cases of renal failure have been reported in hypertensive patients who received thiazides and Zyloprim concurrently. Some patients had evidence of hypersensitivity to allopurinol.

Neurologic: There have been a few reports of peripheral neuritis occurring while patients were taking Zyloprim. Drowsiness has also been reported in a few patients.

Ophthalmic: There have been a few reports of cataracts found in patients receiving Zyloprim. It is not known if the cataracts predated the Zyloprim therapy. "Toxic" cataracts were reported in one patient who also received an anti-inflammatory agent; again, the time of onset is unknown. In a group of patients followed by Gutman and Yü for up to five years on Zyloprim therapy, no evidence of ophthalmologic effect attributable to Zyloprim was reported.

Drug Idiosyncrasy: Symptoms suggestive of drug idiosyncrasy have been reported in a few patients. This was characterized by fever, chills, leukopenia or leukocytosis, eosinophilia, arthralgias, skin rash, pruritus, nausea and vomiting.

OVERDOSAGE: Massive overdosing, or acute poisoning, by Zyloprim has not been reported.

HOW SUPPLIED: 100 mg (white) scored tablets, bottles of 100 and 1000; 300 mg (peach) scored tablets, bottles of 30, 100 and 500. Unit dose packs for each strength also available.

Complete information available from your local B. W. Co. Representative or from Professional Services Department PML.

U.S. Patent No. 3,624,205 (Use Patent)

EDITORIALS

Screening Plasma Donors

The fact that Acquired Immune Deficiency Syndrome (AIDS) is probably due to an unknown factor which may be transmitted to AIDS-free patients by the therapeutic use of blood products obtained from patients suffering from the disease places an awesome responsibility on agencies devoted to the acquisition of blood plasma and the processing of such plasma into various fractions.

Cutter Laboratories, the nation's largest producer of blood plasma products, has adopted a strict and meticulous process by which to recognize prospective donors who might be members of any of the high-risk groups for AIDS.

AIDS has been identified principally in male homosexuals, in intravenous drug users, or in recent residents of or visitors to Haiti. Well authenticated cases have been encountered in individuals outside this high-risk group but these are relatively small in number. In any case it is wise that precautions be taken to exclude AIDS carriers from the plasma donor group by screening all donors and eliminating members of the high-risk groups.

Cutter requires all prospective donors to read and sign a confidential questionnaire which states they are not members of the suspected groups.

Also, all donors are physically examined fully by a specially qualified physician who queries them for specific symptoms characteristic of AIDS.

Heat treatment for coagulation concentrates has been effective in neutralizing transmissable disease agents in other products. This precaution is being reviewed and, if approved by the FDA, may be utilized.

Free Enterprise: Snare or Delusion?

Guest Editorial

One of the basic tenets of our society is currently taking a beating—free enterprise!

Our health care system isn't responding. We have natural gas up to our ears and prices are going up. There is a glut of oil and promises of much more, and we still have no appreciable decline in prices.

We have more hospital beds than we need, more doctors each year, more nursing beds—more anything you care to name.

What's happening? Prices go up and we blame inflation. Supply is ample, but the old law of supply and demand is going to pot. Why?

Mostly because those in charge of demand are pussycats!

So, we have more hospital beds than we need! Keep building! Whatever the cost of maintaining the decreasing use of beds, we will support with higher prices per bed used.

So we have too many doctors. The more the merrier! There won't be anymore patients, but we still see the doctors all survive by paying more for their services.

We pay for surplus nursing home beds just to have them.

More for drugs because it's the "in" thing to do.

We are all riding a wave of hysteria, if we would only acknowledge it.

Supply-and-demand has been replaced by "What will the traffic bear?" Everybody—football players, energy suppliers, health care providers—is caught up in it. Will it stop before we all finally go over the top of what the traffic can bear?

Somehow we doubt it. Unless we stop feeding the kitty with unwarranted costs, for unwarranted services, and the folks on the "demand side" finally realize they hold the trump cards and say THIS is what we will pay. Go sell it somewhere else if you can get more!

That will be the day of judgment. It may come soon.

—Editorial from *Action in Pharmacy*, February 1983, J. Leo McMahon, J.D., editor.



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DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy,* Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

When impotence is due to androgenic deficiency.

Android® 5 mg. Buccal / 10 mg. Oral / 25 mg. Oral

Methyltestosterone U.S.P. Tablets

A well absorbed oral androgen



Additional indications: Replacement therapy. When androgen deficiency is the cause of: male climacteric/eunuchoidism, eunuchism/post-puberal cryptorchidism.

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REFER TO PDR

Thanks, Doctor Beering!

Commentary

EVERYONE IS GOING to miss Dr. Steven Beering. AND, everyone is proud to have had the honor of his acquaintance and the opportunity to celebrate his new assignment.

AND, everyone, it is certain, will bid him Godspeed and best wishes for continued success and the rich enjoyment of further accomplishments.

Dr. Beering is the president-designate of Purdue University and will assume his new duties July 1.

Dr. Beering came to the I.U. School of Medicine in 1969 from a distinguished career in clinical medicine. He was chief of the Medical Service at Wilford Hall Air Force Medical Center at the time. His first assignment at I.U. was to head the Division of Continuing Medical Education.

In 1970 he was promoted from assistant dean to associate dean and was given responsibility for implementation of the "Indiana Plan." Later this became known as the Indiana Statewide Medical Education System. In 1974 Dr. Beering was made director of the entire Indiana University Medical Center.

Also, in 1974, Dr. Beering became the sixth dean of Indiana University School of Medicine. Under his administration the school has prospered. It has established a fabulous number of named professorships and attracted research grants which are expended in basic research for the enrichment of knowledge in biological sciences.



Doctor Beering

Dr. Beering has, through the years, contributed freely to the administration of the American Association of Medical Colleges (AAMC) and is now its president.

He has been the chairman of the Liasion Committee on Medical Education, a group chartered by the Congress to accredit U.S. and Canadian medical schools.

He was chairman of the Section on Medical Schools of the AMA and was a member of the AMA Council on Medical Education Task Force on "Future Directions for Medical Education."

From 1973-1982 Dr. Beering was chairman of the ISMA Commission on Medical Education and, since 1971, he has been a member of the Editorial Board of THE JOURNAL.

His intense interest in all these and many other professional activities is indicated by the fact that he has announced that he will serve his complete term as president of the AAMC. He will retain his title as Professor of Medicine at the medical school and will continue as a member of the Editorial Board.

The medical profession of Indiana can confidently assure the great university on the banks of the Wabash that it can bank on Beering. He leaves the School of Medicine with a multitude of thanks and with a host of best wishes.

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Part-time emergency medicine positions are also available in 11 locations throughout Indiana. Weeknight and weekend shifts of varying length are available immediately. For details call Linda Nelson at 1-800-325-3982. All inquiries will be handled in confidence.

References:
1. Stone PH, Turi ZG, Muller JE. Efficacy of nifedipine therapy for refractory angina pectoris. *Am Heart J* 104:672-681, September 1982.
2. Antman E, Muller J, Goldberg S, et al. Nifedipine therapy for coronary artery spasm: Experience in 127 patients. *N Engl J Med* 302:1269-1273, June 5, 1980.

BRIEF SUMMARY
PROCARDIA (nifedipine) **CAPSULES** For Oral Use

INDICATIONS AND USAGE: I. Vasospastic Angina: PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm. In those patients who have had angiography, the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied. PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component but where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion or in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers.

II. Chronic Stable Angina (Classical Effort-Associated Angina): PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina), PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in those patients are incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta-blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings.)

CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA.

WARNINGS: Excessive Hypotension: Although in most patients the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly tolerated hypotension. These responses have usually occurred during initial titration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Severe hypotension and/or increased fluid volume requirements have been reported in patients receiving PROCARDIA together with a beta blocking agent who underwent coronary artery bypass surgery using high dose fentanyl anesthesia. The interaction with high dose fentanyl appears to be due to the combination of PROCARDIA and a beta blocker, but the possibility that it may occur with PROCARDIA alone, with low doses of fentanyl, in other surgical procedures, or with other narcotic analgesics cannot be ruled out. In PROCARDIA treated patients where surgery using high dose fentanyl anesthesia is contemplated, the physician should be aware of these potential problems and, if the patient's condition permits, sufficient time (at least 36 hours) should be allowed for PROCARDIA to be washed out of the body prior to surgery.

Increased Angina: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Beta Blocker Withdrawal: Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release. There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA.

Congestive Heart Failure: Rarely, patients usually receiving a beta blocker, have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater risk for such an event.

PRECAUTIONS: General: Hypotension: Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. (See Warnings.)

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug interactions: Beta-adrenergic blocking agents (See Indications and Warnings.) Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates: PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antianginal effectiveness of this combination.

Digitalis: Administration of PROCARDIA with digoxin increased digoxin levels in nine of twelve normal volunteers. The average increase was 45%. Another investigator found no increase in digoxin levels in thirteen patients with coronary artery disease. In an uncontrolled study of over two hundred patients with congestive heart failure during which digoxin blood levels were not measured, digitalis toxicity was not observed. Since there have been isolated reports of patients with elevated digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing PROCARDIA to avoid possible over- or under-digitalization.

Carcinogenesis, mutagenesis, impairment of fertility: When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose.

Pregnancy: Category C. Please see full prescribing information with reference to teratogenicity in rats, embryotoxicity in rats, mice and rabbits, and abnormalities in monkeys.

ADVERSE REACTIONS: The most common adverse events include dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients; transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%. Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antianginal medication. Additionally, the following have been reported: muscle cramps, nervousness, dyspnea, nasal and chest congestion, diarrhea, constipation, inflammation, joint stiffness, shakiness, sleep disturbances, blurred vision, difficulties in balance, dermatitis, pruritus, urticaria, fever, sweating, chills, and sexual difficulties. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

Laboratory Tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CPK, LDH, SGOT, and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy. The relationship to PROCARDIA therapy is uncertain. These laboratory abnormalities have rarely been associated with clinical symptoms. Cholestasis, possibly due to PROCARDIA therapy, has been reported twice in the extensive world literature.

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA CAPSULE contains 10 mg of nifedipine. PROCARDIA CAPSULES are supplied in bottles of 100 (NDC 0069-2600-66), 300 (NDC 0069-2600-72), and unit dose (10x10) (NDC 0069-2600-41). The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

More detailed professional information available on request.

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"I can do things that I couldn't do for 3 yrs. including joining the human race again."



Quotes from an unsolicited letter received by Pfizer from an angina patient. While this patient's experience is representative of many unsolicited comments received, not all patients will respond to Procardia nor will they all respond to the same degree.

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"My daily routine consisted of sitting in my chair trying to stay alive."

"My doctor switched me to PROCARDIA[*] *as soon as it became available. The change in my condition is remarkable."*

"I shop, cook and can plant flowers again."

"I have been able to do volunteer work...and feel needed and useful once again."

PROCARDIA can mean the return to a more normal life for your patients—having fewer anginal attacks,[1] taking fewer nitroglycerin tablets,[2] doing more, and being more productive once again.

Side effects are usually mild (most frequently reported are dizziness or lightheadedness, peripheral edema, nausea, weakness, headache and flushing, each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%).



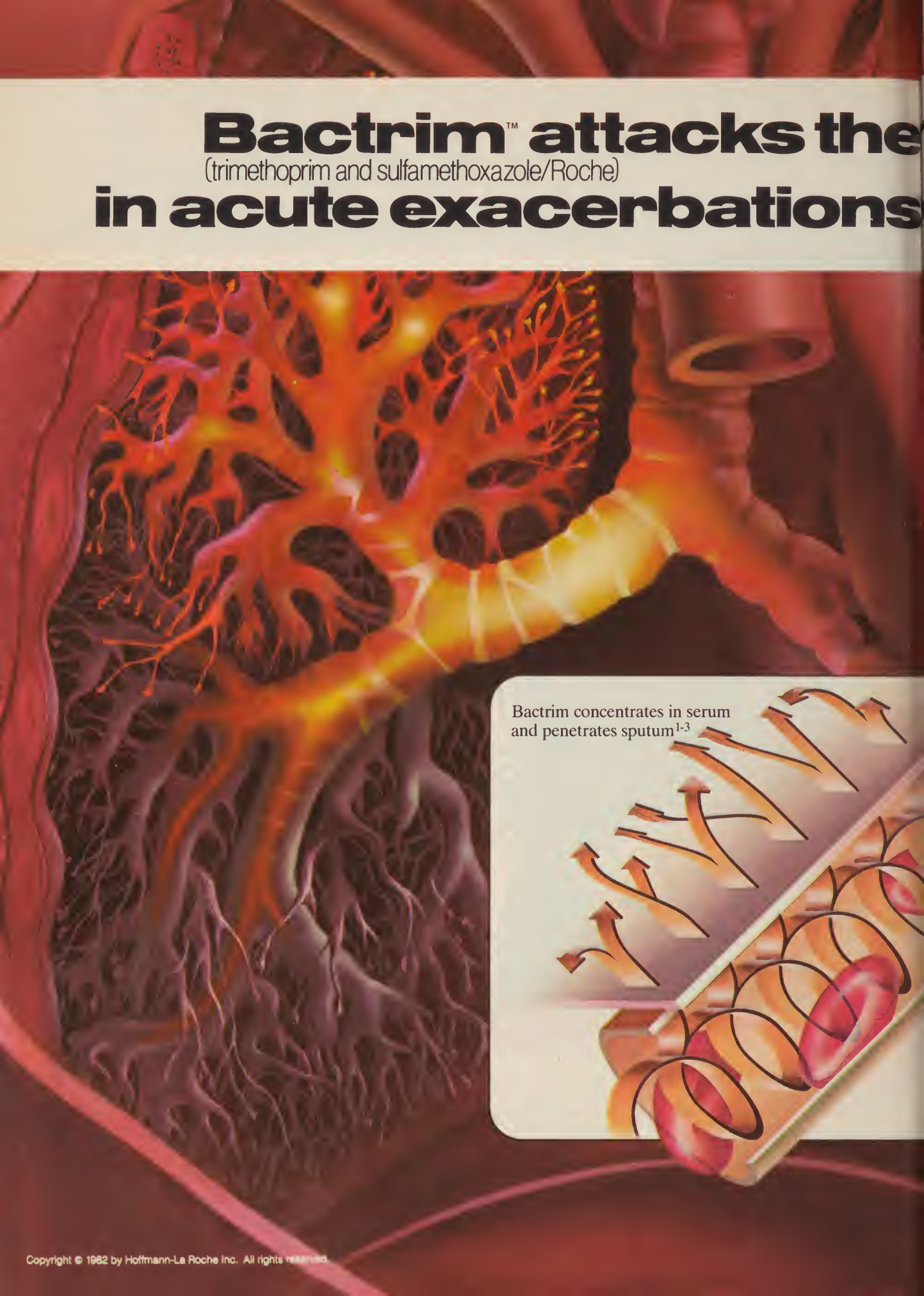
for the varied faces of angina

PROCARDIA®
(NIFEDIPINE) *Capsules 10 mg*

*Procardia is indicated for the management of:
1) Confirmed vasospastic angina.
2) Angina where the clinical presentation suggests a possible vasospastic component.
3) Chronic stable angina without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or nitrates or who cannot tolerate these agents. In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks' duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these patients are incomplete.

Please see PROCARDIA *brief summary on adjoining page.*

Bactrim™ attacks the
(trimethoprim and sulfamethoxazole/Roche)
in acute exacerbations



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ROCHE

major pathogens of chronic bronchitis*

Bactrim clears sputum of susceptible bacteria

In sputum cultures from patients with acute exacerbations of chronic bronchitis, *H. influenzae* and *S. pneumoniae* are isolated more often than any other pathogens.[4,5] One study of transtracheal aspirates from 76 patients with acute exacerbations found that 80% of the isolates were of these two pathogens.[5]

Bactrim is effective *in vitro* against most strains of both *S. pneumoniae* and *H. influenzae*—even ampicillin-resistant strains. And in acute exacerbations of chronic bronchitis involving these two pathogens, sputum cultures taken seven days after a two-week course of therapy showed that Bactrim eradicated these bacteria in 91% (50 of 55) of the patients treated.[6]

Bactrim reduces coughing and sputum production

In three double-blind comparisons with ampicillin *q.i.d.*, Bactrim DS proved equally effective on all clinical parameters.[7-9] Bactrim reduced the frequency and severity of coughing, reduced the amount of sputum produced and cleared the sputum of purulence.

Bactrim has the added advantages of *b.i.d.* dosage convenience and a lower incidence of diarrhea than with ampicillin, and it is useful in patients allergic to penicillins.

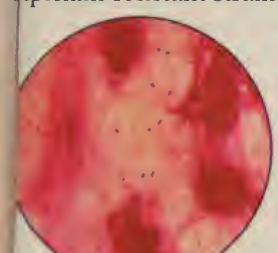
Bactrim also proved more effective than tetracyclines in 10 clinical trials involving nearly 700 patients.[10] Overall clinical condition of the patients, changes in sputum purulence, reduction in sputum volume and microbiological clearance of pathogens—all improved more with Bactrim therapy than with tetracyclines. G.I. side effects occurred in only 7% of patients treated with Bactrim compared with 12% of tetracycline-treated patients. (See Adverse Reactions in summary of product information on next page.)

Bactrim is contraindicated in pregnancy at term and nursing mothers, infants under two months of age, documented megaloblastic anemia due to folate deficiency and hypersensitivity.

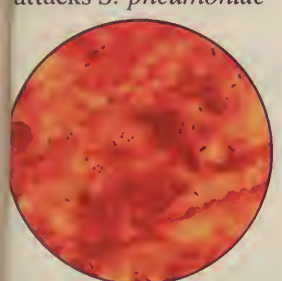
Bactrim DS. For acute exacerbations of chronic bronchitis in adults* when it offers an advantage over single-agent antibacterials.

References: **1.** Hughes DTD, Bye A, Hodder P: *Adv Antimicrob Antineoplastic Chemother 1/2*:1105-1106, 1971. **2.** Jordan GW *et al: Can Med Assoc J 112*:91S-95S, Jun 14, 1975. **3.** Beck H, Pechere JC: *Prog Antimicrob Anticancer Chemother 1*:663-667, 1969. **4.** Quintiliani R: Microbiological and therapeutic considerations in exacerbations of chronic bronchitis, in *Chronic Bronchitis and Its Acute Exacerbations: Current Diagnostic and Therapeutic Concepts;* Princeton Junction, NJ, Communications Media for Education, Inc., 1980, pp. 9-12. **5.** Schreiner A *et al: Infection 6*(2):54-56, 1978. **6.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **7.** Chodosh S: Treatment of acute exacerbations of chronic bronchitis: results of a double-blind crossover clinical trial, in *Chronic Bronchitis and Its Acute Exacerbations: Current Diagnostic and Therapeutic Concepts. Op. cit.*, pp. 15-16. **8.** Chervinsky P: Double-blind clinical comparisons between trimethoprim-sulfamethoxazole (Bactrim™) and ampicillin in the treatment of bronchitic exacerbations. *Ibid.*, pp. 17-18. **9.** Dulfano MJ: Trimethoprim-sulfamethoxazole vs. ampicillin in the treatment of exacerbations of chronic bronchitis. *Ibid.*, pp. 19-20. **10.** Medici TC: Trimethoprim-sulfamethoxazole (Bactrim™) in treating acute exacerbations of chronic bronchitis: summary of European clinical experience. *Ibid.*, pp. 13-14.

attacks *H. influenzae*—even ampicillin-resistant strains



attacks *S. pneumoniae*



Economical b.i.d.

Bactrim™ DS

(160 mg trimethoprim and 800 mg sulfamethoxazole/Roche)

*Due to susceptible organisms. **Please see next page for summary of product information.**

Bactrim™

(trimethoprim and sulfamethoxazole/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea, pseudomembranous colitis and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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ORAFLEX: A Report of the ISMA Ad Hoc Interspecialty Council on Scientific Affairs

FRANKLIN A. BRYAN, M.D.
Fort Wayne

ANTICIPATING THE NEED for an official statement of the Indiana State Medical Association's position concerning the marketing, use, and eventual suspension of the sales of benoxaprofen (Oraflex), the Interspecialty Council on Scientific Affairs of ISMA was asked to consider this unique situation.

Oraflex was released by Eli Lilly and Company for use in the United States on May 19, 1982, after extensive testing for safety and efficacy and treatment of patients in many parts of the world. On June 29, 1982, a special caution statement[1] was mailed by Lilly to all physicians in the U.S. reemphasizing the need to reduce the dosage of Oraflex in elderly patients. On Aug. 4, 1982, Lilly voluntarily withdrew Oraflex from the market because the controversy surrounding the drug's safety became highly publicized and politicized, making scientific evaluation impossible.[2]

Several members of the Interspecialty Council on Scientific Affairs responded to the request for information relative to their specialties' use and experience with Oraflex. These members represent the specialties of internal medicine, orthopedics and emergency medicine.

The general opinion of the council is that the drug provided good anti-inflammatory and pain relief in many cases. However, in some cases, the drug had to be discontinued because of side effects, the most common of which were cutaneous and gastrointestinal. None of these effects was reported to be serious. In addition, a report suggested that the intense marketing of the drug was inappropriate, leading to overexpectations for the drug by the public and the medical community while downgrading its potential side effects. The voluntary withdrawal of Oraflex by Lilly is reported to have been met with concern and confusion.[3]

A review of the literature reveals many reports about the drug's efficacy and safety. Many of these were published in the *Journal of Rheumatology, Supplement No. 6*, Volume I, 1980, Proceedings of the International Symposium on Benoxaprofen held in Weisbaden, West Germany (Sept. 1-2, 1979).[4] Most of these reports were favorable to the drug and revealed no serious side effects (mainly cutaneous and mild gastrointestinal disturbances). One report in this journal, however, revealed a slight elevation of liver function values in a single patient and a slight elevation of kidney function values in another patient. In each case, these values returned to normal after benoxaprofen administration was discontinued. A small transient rise in the level of liver enzymes and serum creatinine in some patients was described elsewhere in the journal.

Another journal article cites five case reports involving elderly women. A striking feature in all these patients who had been given benoxaprofen was the rapidly fatal course of jaundice in spite of the immediate withdrawal of the drug at the first evidence of liver dysfunction. This was associated with acute renal failure in at least four of the patients. According to this article, the manufacturer of benoxaprofen (Dista, Ltd., a Lilly subsidiary in the United Kingdom) had been aware of the problems with the drug in frail, elderly patients, but only one death from jaundice (a younger man abusing several drugs) had been reported to the company.[5]

Another article reported jaundice associated with the use of benoxaprofen and presented three case histories, one of which involved a patient who died of pneumonia.[6]

In January 1982, the Arthritis Advisory Committee of the U.S. Food and Drug Administration unanimously recommended the approval of benoxaprofen.[7] This report led to the FDA's final approval to market the drug.

The Interspecialty Council for Scientific Affairs believes that ISMA should commend and strongly support Eli Lilly and Company for voluntarily withdrawing Oraflex from the market, while making the drug available on a restricted basis to physicians treating patients for whom no other therapy was satisfactory.

Dr. Bryan, assistant dean and director of the Fort Wayne Center for Medical Education, is chairman of the ISMA Ad Hoc Interspecialty Council on Scientific Affairs.

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ISMA LEGISLATIVE RECEPTION

PHOTOS BY JOYCE WOLF

The annual ISMA legislative reception, held in February for the 103rd Indiana General Assembly, attacted about 90 legislators and 30 ISMA physicians, as well as several ISMA Auxilians, guests and ISMA staff members.

Dr. John A. Knote, ISMA president, said that the reception, held at the Columbia Club, Indianapolis, "proved a success and was an excellent opportunity to talk with legislators regarding medical issues."

On this page are scenes from the reception.



Sen. Joseph W. Harrison, Attica, Senate majority leader; Dr. John A. Knote, ISMA president.



Dr. Edward L. Langston, Flora; Rep. Ralph T. Underwood, Connorsville; and Rep. Sheila A. Klinker, Lafayette.



Rep. Gregory E. Mishler, Bremen; Rep. Mitchell V. Harper, New Haven; and Mrs. Vivian Priddy, Fort Wayne, ISMA Auxiliary.



Dr. Ronald Blankenbaker, state health commissioner, and Mr. Jack Ebbeler, Eli Lilly and Co.



Sen. Roger L. Jessup, Summitville; Mr. Rick King, ISMA attorney; and Mr. Jack Ebbeler, Eli Lilly and Co.

Brief Prescribing Information

CONTRAINDICATIONS: Patients with severe hypertension, severe coronary artery disease, and in patients on MAO inhibitor therapy, narrow-angle glaucoma, urinary retention, peptic ulcer, during an asthmatic attack.

Hypersensitivity: Contraindicated in patients with hypersensitivity or idiosyncrasy to sympathomimetic amines or phenanthrene derivatives.

Nursing Mothers: Contraindicated because of the higher than usual risk for infants from sympathomimetic amines.

WARNINGS: Use judiciously and sparingly in patients with hypertension, diabetes mellitus, ischemic heart disease, increased intraocular pressure, hyperthyroidism, or prostatic hypertrophy. May produce CNS stimulation and convulsions or cardiovascular collapse with accompanying hypotension.

Use with caution in patients with increased intraocular pressure, cardiovascular disease, hypertension or in patients with a history of bronchial asthma. Do not exceed recommended dose.

Use in Elderly: The elderly (60 years and older) are more likely to have adverse reactions to sympathomimetics. Overdosage in this age group may cause hallucinations, convulsions, CNS depression and death.

PRECAUTIONS: *General:* Should be used with caution in patients with diabetes, hypertension, cardiovascular disease and hyperreactivity to ephedrine. The antihistaminic may cause drowsiness and ambulatory patients who operate machinery or motor vehicles should be cautioned accordingly.

Information for Patients: Antihistamines may impair mental and physical abilities required for the performance of potentially hazardous tasks, such as driving a vehicle or operating machinery, and mental alertness in children.

Drug Interactions: MAO inhibitors and beta adrenergic blockers increase the effect of sympathomimetics. Sympathomimetics may reduce the antihypertensive effects of methyldopa, mecamylamine, reserpine and veratrum alkaloids. Concomitant use of antihistamines with alcohol, tricyclic antidepressants, barbiturates and other CNS depressants may have an additive effect.

Pregnancy Category C: Animal reproduction studies have not been conducted with NOVAFED A capsules. It is also not known whether NOVAFED A capsules can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. NOVAFED A capsules may be given to a pregnant woman only if clearly needed.

Nursing Mothers: Pseudoephedrine is contraindicated in nursing mothers because of the higher than usual risk for infants from sympathomimetic amines.

ADVERSE REACTIONS: Hyperreactive individuals may display ephedrine-like reactions such as tachycardia, palpitations, headache, dizziness, or nausea. Patients sensitive to antihistamines may experience mild sedation. Sympathomimetic drugs have been associated with certain untoward reactions including fear, anxiety, tenseness, restlessness, tremor, weakness, pallor, respiratory difficulty, dysuria, insomnia, hallucinations, convulsions, CNS depression, arrhythmias, and cardiovascular collapse with hypotension.

Possible side effects of antihistamines are drowsiness, restlessness, dizziness, weakness, dry mouth, anorexia, nausea, headache, nervousness, blurring of vision, heartburn, dysuria and very rarely dermatitis. Patient idiosyncrasy to adrenergic agents may be manifested by insomnia, dizziness, weakness, tremor or arrhythmias.

OVERDOSAGE: Acute overdosage with NOVAFED A capsules may produce clinical signs of CNS stimulation and variable cardiovascular effects. Pressor amines should be used with great caution in the presence of pseudoephedrine. Patients with signs of stimulation should be treated conservatively.

DOSAGE AND ADMINISTRATION: One capsule every 12 hours. Do not give to children under 12 years of age.

CAUTION: Federal law prohibits dispensing without prescription.

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AUXILIARY REPORT

Hulda Classen (Mrs. Peter)
President, ISMA Auxiliary

As I prepared to take office as president of the ISMA-A, I reviewed the objectives of the auxiliary. The primary objectives are:

1. To assist the Indiana State Medical Association in its program for the advancement of medicine and public health.
2. To coordinate and advise concerning the activities of constituent auxiliaries.
3. To encourage participation of volunteers in activities that meet health needs.
4. To support health-related charitable endeavors.

The opportunity for teamwork with our physician spouses in the advancement of medicine is an interesting and exciting challenge. The privilege to have representatives on the ISMA commissions helps us to be more aware of the issues that confront you in the state and national arenas.

You have encouraged us to grow in knowledge and develop our leadership capabilities. Your sending the president-elect to the annual AMA Leadership Conference is one example.

Under the auspices of the ISMA, I attended the 11th annual AMA Leadership Conference in Chicago. It gave me a better understanding of what the current problems are in the nation's health care system. With courage the leaders of your society are confronting the changing economic and political realities of the medical scene. Instead of "reacting," plans for action are made to shape and control the destiny of medicine.

You encourage us to monitor health care legislation. To participate with you in legislative workshops. To go with you to the statehouse and to Washington. To become acquainted with the legislators and lobby for medicine.

It is an exciting time to be an auxilian. To link arms with the ISMA to form a strong network of positive communication for the medical care providers. Our goal for 1983-84 is: "Every physician's spouse an auxiliary member."

To attain this goal we will need assistance from you, dear physician. Can you help us? Encourage your spouse to join the auxiliary.

Welcome

THE JOURNAL welcomes Hulda Classen as the 55th president of the ISMA Auxiliary.

Hulda is from Elkhart where she is a real estate broker and is involved in land development. Her husband, Dr. Peter Classen, is a family physician.

The Classens have four children. Tim, a graduate of Goshen College, is in banking in Adamstown, Pa. Sheryl, a graduate of Washington University, is a CPA with Sverdrup Corp. Becky, also a graduate of Washington University, is a loan examiner with Lomas & Nettleton Mtg. Co., W. Lafayette. Beverly is a senior at Stanford University.

Hulda, who attended Goshen College and Indiana University South Bend, has been an auxilian since 1957. She is a past president, secretary, treasurer, and finance committee chairman of the Elkhart County Auxiliary and is a past treasurer and first vice president of the state auxiliary. She also has been a member of the Parents Council and Admissions Council of Washington University. She is a church treasurer and a member of the church's stewardship commission. In addition, she a member of the Elkhart Board of Realtors and the Home Builders Association of Elkhart County.

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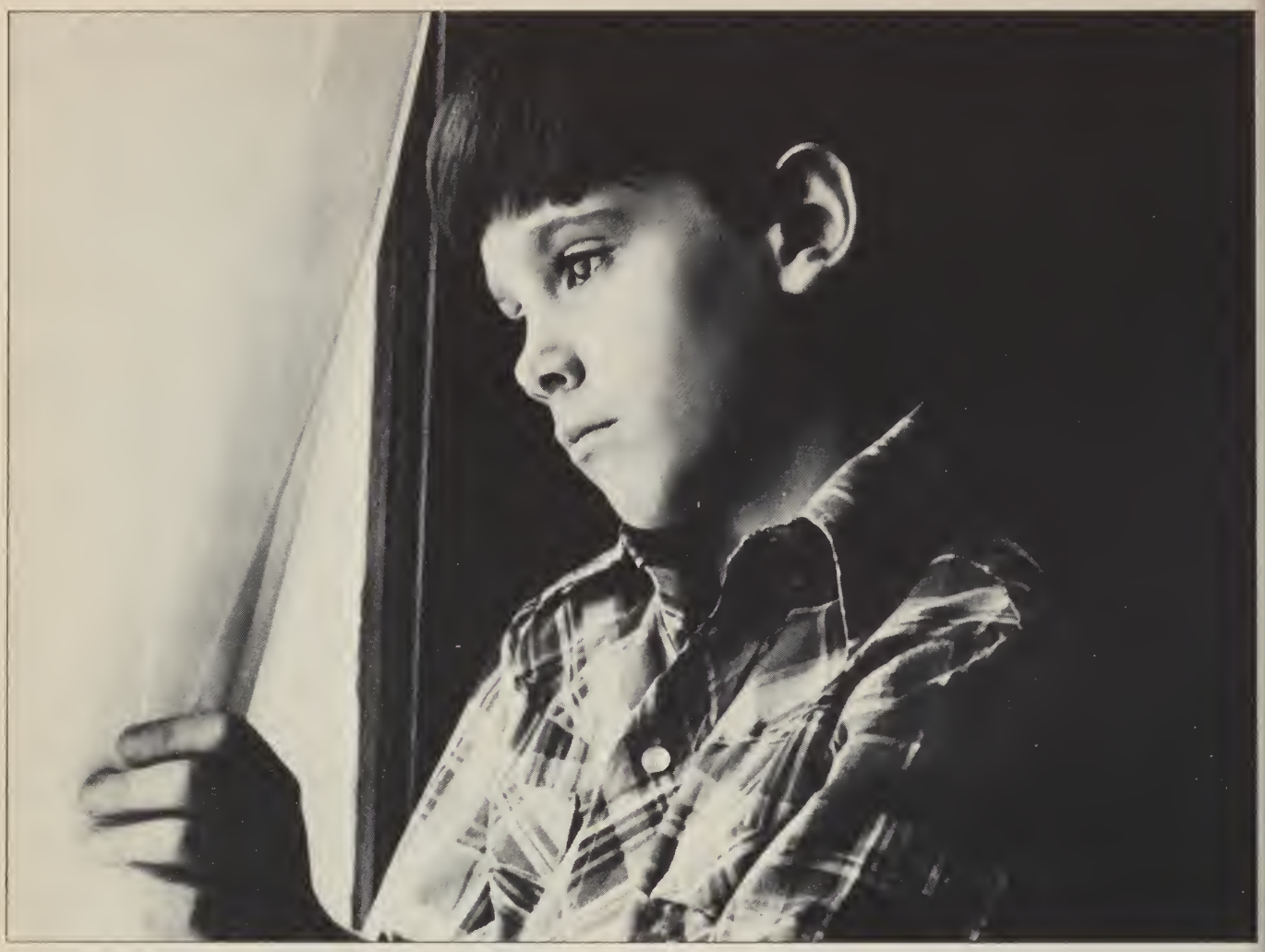
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Because if we don't all start somewhere, we won't get anywhere.

National Committee for Prevention of Child Abuse

Help us get to the heart of the problem.

Write: Prevent Child Abuse, Box 2866, Chicago, Illinois 60690

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NEWS NOTES

20 New PMIs Available

The AMA now has 20 new Patient Medication Instruction leaflets available, bringing to 40 the total number that have been published since the program was launched last fall.

PMI leaflets are bound in pads of 100; the minimum order is 10 pads for $5, prepaid to AMA, P.O. Box 52, Rolling Meadows, Ill. 60008.

Titles of the new PMIs are Lithium, Haloperidol, Hydralazine, Guanethidine, Valproic Acid, Ethosuximide, Allopurinol, Oral Xanthine Derivatives, Thyroid Replacement, Metronidazole, Oral Clindamycin/Lincomycin, Oral Chloramphenicol, Levodopa/Carbidopa and Levodopa, Ergot Derivatives, Indomethacin, Phenylbutazone/Oxyphenbutazone, Quinidine/Procainamide, Iron Supplements, Verapamil, and Nifedipine.

The titles of the first 20 PMIs were listed in the February 1983 issue of THE JOURNAL, page 146.

Finneran Seminar

The third annual Joseph C. Finneran visiting professorship was conducted May 6-7 at St. Vincent Hospital and at Indiana University Medical Center.

This year's visiting professor was Dr. Sven-Erik Bergentz of the University of Lund in Sweden. He is a specialist in vascular surgery.

The series was inaugurated in 1981 under the auspices of the Finneran Surgical Endowment Fund, St. Vincent Foundation.

High Level Discussions

AMA leaders have met with top government officials in a continuing effort to keep open channels of communication with the Administration.

Meeting with Attorney General William French Smith and FTC Chairman James Miller were Dr. William Rial, AMA president, Dr. Joseph F. Boyle, chairman of the Board of Trustees, and Dr. James H. Sammons, executive vice-president.

They reviewed the antitrust law as it relates to the professions, and conveyed medicine's concerns that overly restrictive interpretation of the law has adversely affected professional involvement in patient advocacy activities. In a meeting with Margaret Heckler, secretary-designate of HHS, the AMA officials discussed policy concerns.

Participants said the meetings helped promote mutual understanding of issues. Areas of agreement were identified, as were areas where differences of opinion need further discussion.

Bone Growth Stimulator

Du Pont reports an implantable device called an "Osteostim," made by Telectronics. When implanted near the site of a fracture, an electrical current from a titanium capsule stimulates bone growth and hastens healing. When applied to a non-healing fracture, the resulting stimulation functions better than that obtained by bone grafting.

The capsule is about the size of a man's little finger. It is implanted just under the skin, several inches from the fracture. It contains an electric cell that will deliver a small current (20 microamps) for as long as six months.

A titanium electrode wire attached to the capsule extends to and is inserted into a slot cut in the bone across the fracture line. The wire is curled into a coil. After healing the capsule may be removed under local anesthesia in the outpatient department. The wire is left in place.

The device is also used in lumbo-sacral fusions by using four electrode wires, each of which carries 5 microamps to each of four sites in the fusion.

AMI Comes to Indiana

The Culver Union Hospital, Crawfordsville, will be sold to a hospital management company, American Medical International (AMI), which will manage it until a new, modern facility is completed. The State Board of Health has approved the sale and construction of a new hospital, both to be under the management of AMI until the new building is ready for occupancy, after which the old structure will revert to Montgomery County.

The new arrangement will alleviate the deficiencies of Culver which the county was unable to remedy.

AMI is the oldest of the investor-owned health care centers, having been founded in 1960. It owns or operates more than 100 hospitals worldwide, including 74 in the U.S.

New Koala Program

Koala Centers is starting a new 20-week program, called Evening Program, to meet the needs of individuals and families who have difficulties and disruptions in their lives due to dependency on alcohol or other drugs, including marijuana.

The plan is divided into three phases and covers education, group therapy and introduction to AA and Al-Anon. Phase II is an intensive treatment stage of six weeks duration. Eligibility for the program is determined by a set of criteria to be established during Phase I. Referrals may be made by any significant person in the alcoholic's life, employer, family member, friends, physician or self.

The program fee is in the neighborhood of $2,000, which covers all family members for all portions of the three phases and ending with aftercare. Evening Program staff will be full-time certified alcoholism and drug abuse counselors and recovering persons.

For further details write or call Koala Centers, 9011 N. Meridian, Suite 203, Indianapolis 46260—(317) 848-7666.



If you can't give up wine, women and song, I insist you pay in advance before I operate.

NEWS NOTES

Handicapped Infants Rule

HHS has amended the procedures normally used to investigate alleged violations of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination against the handicapped by recipients of federal funds in order to provide special procedures for cases involving handicapped infants.

An interim final rule published March 7 requires all recipients of federal funds that treat infants to post a notice saying, "Discriminatory failure to feed and care for handicapped infants in this facility is prohibited by federal law." The notice would further state that "Any person having knowledge that a handicapped infant is being discriminatorily denied food or customary medical care should immediately contact HHS" and would list a toll-free number at HHS to call with reports of alleged violations. According to the required notice, the identity of the callers will be kept confidential.

Another change is to allow HHS investigators to have access to records and facilities 24 hours a day whenever immediate access is necessary to protect the life or health of a handicapped individual. The rule would also waive HHS's requirement that a facility be given 10 days to conform before legal action is taken. The rule became effective March 22.

Needy Get Medical Help

Medical societies have organized local initiatives to meet the health care needs of people who have lost health benefits because of unemployment or changes in eligibility for Medicaid and Social Security disability programs.

A preliminary survey by the AMA's Dept. of Health Care Coalitions found projects operated by the American Society of Internal Medicine, the Guthrie Clinic in Sayre, Pa., the Iowa Medical Society, and nine county medical societies in six states, including the Fort Wayne County Medical Society.

'We Care' Clinic

A special medical assistance clinic has been opened for unemployed residents of Wells County. The Caylor-Nickel Clinic has operated a "We Care" Clinic for acute medical programs since Feb. 7. Patients are seen three days a week at Bluffton and twice weekly at Ossian.

A $5 cash fee covers the clinic visit and some types of medication. A special fund is being accumulated for the care of patients who need more than routine treatment or hospitalization.

Caylor-Nickel started the special fund with $15,000 and the public is building an equal amount to form a matching fund.

House Fire Study

House fire news from Baltimore shows that fire fatalities occur more commonly in low-income areas. More than half of the deaths were attributed to cigarette-ignited fires. Alcohol consumption was related to a number of the cigarette-fire deaths.

Sixty per cent of the fatalities due to fire occurred in a part of the city that contains only 40% of the population. The study also showed that the low-income segment had few smoke detectors as compared with higher-income groups.

The report, which touches on many other public health considerations of this nature, was based on a three-year public health study by researchers from Johns Hopkins School of Hygiene and Public Health and appears in a recent issue of *JAMA*.

Annual Poetry Contest

A $1,000 grand prize will be awarded in the eighth annual Poetry Competition sponsored by World of Poetry, a quarterly newsletter for poets.

Poems of all styles and on any subject are eligible to compete for the grand prize or for 99 other cash or merchandise awards, totaling more than $10,000.

Rules and official entry forms are available from the World of Poetry, 2431 Stockton Blvd., Dept. B, Sacramento, Calif. 95817.

Cardiology J-Awards

Two new journalism awards in cardiology have been established by the American Medical Writers Association and Searle Laboratories. The awards of $1,500 each will recognize excellence in reporting on new research and therapy for cardiovascular disease.

One award will be given to the winning entry in the newspaper category and the other will go for the best magazine article. The articles to be judged must have been published between July 1, 1982 and June 30, 1983. The deadline for submission is July 15, 1983.

Details and entry information may be requested by writing to Journalism Awards in Cardiology, American Medical Writers Association, 5272 River Road, Suite 410, Bethesda, Md. 20816.

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Meet Our New Printer

Effective with this issue, THE JOURNAL is now being printed by the Western Newspaper Publishing Co. of Indianapolis. The magazine formerly was printed by a firm in Louisville, Ky.

Western Newspaper Publishing Co. has been in Indianapolis more than 100 years. The word "Newspaper" was in the original company name because, until about 20 years ago, the firm printed newspapers or portions of them for small outlying Indiana communities—included were "patent inside pages", i.e., pages centrally printed by Western to be used by all subscribing newspapers.

Today, Western is a specialized technical publications printer which handles more than two dozen other magazines besides THE JOURNAL and also prints technical books. The firm's president is Mr. George W. Gard, who became a printer 18 years ago when he and his wife bought the company. He is proud of the fact that his company now handles all typesetting, printing and binding under one roof.

Our headlines are of the Helios family and most of our body type (what you're now reading) is 9-on-11 point English Times. All type is set on computerized equipment. We are being printed on a sheet-fed, Miller TP-38 offset press. Our covers are printed on 100-pound Sterling Litho Enamel stock and our inside pages are printed on 60-pound Westvaco Sterling Litho Matte text stock.



She can't take blood pressure or even temperature, but she's the only one I ever met who understands the Medicare and insurance forms.

Here and There . . .

. . . **Dr. Mikhail F. Jeha** of Crown Point and **Dr. Michael S. McCrea** of Terre Haute are new members of the American College of Radiology.

. . . **Dr. Clarence E. Ehrlich** of Indianapolis has been appointed by the State Board of Health to a subcommittee of the Task Force on the Prevention of Handicapping Conditions.

. . . **Dr. Robert E. Rogers** of Indianapolis is president-elect of the Society of Gynecological Surgeons.

. . . **Dr. Charles W. Calhoun** of Seymour discussed heart disease during a March meeting of the Brownstown Exchange Club.

. . . **Dr. Thomas J. Cittadine** and **Dr. Daniel W. Dro** of Indianapolis have been inducted as fellows of the American Academy of Orthopaedic Surgeons.

. . . **Dr. Elaine P. Habig** of Lebanon has been elected chief of the medical staff, Witham Memorial Hospital; **Dr. Dallas E. Coate** is vice chief of staff, and **Dr. Ritchie Coons** is secretary-treasurer.

. . . **Dr. James E. Schroeder** of Indianapolis discussed the role of an oncologist during the March meeting of the Hendricks County Chapter of Make Today Count.

. . . **Dr. Robert D. Arnold** of Indianapolis has returned to the full-time practice of obstetrics and gynecology after a 16-month sabbatical during which he and Mrs. Arnold traveled more than 100,000 miles in North and South America and Africa.

. . . **Dr. Herschell Servies** of Lebanon recently explained Emergency Room procedures at Witham Memorial Hospital to a group of visiting Lebanon Middle School students.

. . . **Dr. William M. Dugan, Jr.** of Indianapolis has been elected president of the Association of Community Cancer Centers.

. . . **Dr. Louis F. Bradley** of Bluffton has retired after 24 years as an internist with the Caylor-Nickel Clinic and Hospital.

. . . **Dr. Frank Vinicor**, an Indianapolis endocrinologist, discussed "Human Insulin: Lifesaving Liquid of the Eighties" at an April meeting in Union City sponsored by the American Diabetes Association.

Costs of Diagnostic Tests

The American College of Emergency Physicians has studied diagnostic tests in 22 participating hospitals and has listed data on the 100 highest-total-cost tests ordered. From these data the task force overseeing the project has selected 35 tests to be targeted for cost reduction through education.

The ACEP is developing educational materials to aid emergency physicians, nurses and other hospital personnel involved. The materials will include information on lower-cost alternatives to the listed diagnostic tests. Educational sessions will be held in each participating hospital for three months, after which further data will be gathered for comparison.

The goal is to maintain a high level of quality medical care and, at the same time, become more cost efficient.

Cardiology Clinical Notes

Hewlett-Packard is beginning a new series of clinical notes in diagnostic cardiology written by leading cardiologists. Each publication in the series will be devoted to a specific application involving the HP 4700A PageWriter cardiograph. The title is "Clinical Notes." Copies may be obtained without charge from HP Medical Products Group, 100 Fifth Ave., Waltham, Mass. 02554.



Excuse me, Doctor, but if I leave now, I can get a second opinion at the Wilson's party.

OBITUARIES

Ronald W. Barr, M.D.

Dr. Barr, 60, a Fort Wayne physician, died Jan. 1 at his home in Fort Wayne.

He earned the M.D. in 1946 from the University of Minnesota.

Dr. Barr practiced occupational medicine at the General Electric Company in Fort Wayne.

William E. Adamson, M.D.

Dr. Adamson, 42, an Evansville pathologist, died Jan. 14 at Welborn Memorial Hospital, Evansville.

He was a 1969 graduate of Georgetown University School of Medicine.

Dr. Adamson was certified by the American Board of Pathology and was a member of the College of American Pathologists.

Herminio Y. Montes, M.D.

Dr. Montes, 57, a Munster anesthesiologist, died Jan. 29 at Community Hospital, Munster.

He earned the M.D. degree in 1951 from the University of St. Tomas, Manila.

Dr. Montes was a fellow of the American College of Anesthesiologists.

William E. Pearson, M.D.

Dr. Pearson, 80, a Wabash physician, died March 7 at Wabash County Hospital.

He was a 1928 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Pearson was a past president of the Wabash County Medical Society. His memberships included the American College of Surgeons, the American Academy of Family Physicians, and the ISMA Fifty Year Club.

Harry T. Stout, Jr., M.D.

Dr. Stout, 64, a Frankfort physician, died Feb. 10 at Clinton County Hospital.

He was a 1943 graduate of the University of Louisville School of Medicine and was an Army veteran of World War II.

Dr. Stout was a former president of the Clinton County Medical Society and a former chief of staff of Clinton County Hospital. He was the current president of the Indiana Standardbred Horse Board of Regulations.

Hubert T. Goodman, M.D.

Dr. Goodman, 82, a retired Terre Haute physician, died Jan. 25 in Columbus, Ohio.

He earned the M.D. degree in 1936 from the University of Oklahoma. He was an Army veteran of World War II.

Dr. Goodman was a former Vigo County health officer, a former vice-president of the Vigo County Medical Society, and a former president of the Terre Haute Academy of Medicine.

Raleigh S. Miller, M.D.

Dr. Miller, 87, a retired Indianapolis general practitioner, died Feb. 3 at Methodist Hospital, Indianapolis.

He was a 1941 graduate of Indiana University School of Medicine.

Dr. Miller, who retired from practice 10 years ago, was formerly on the staff of St. Vincent Hospital.

R. Shirrell Rogers, M.D.

Dr. Rogers, 67, a Terre Haute physician, died March 1 at Terre Haute Regional Hospital.

He was a 1942 graduate of the Medical University of South Carolina. He served with the U.S. Navy Reserve during World War II.

Dr. Rogers was a staff physician at Indiana State University and served as athletic team physician. He was a member of the American Adademy of Family Physicians and was a former ISMA delegate representing the Vigo County Medical Society.

Abner P. Bennett, M.D.

Dr. Bennett, 69, a pathologist at Welborn Hospital in Evansville since 1947, died March 19 in Washington, D.C.

He earned the M.D. degree from Syracuse University in 1940. He was an Army veteran of World War II.

Dr. Bennett was a former president of the medical staff of Welborn Hospital and director of the Clinical Laboratory 30 years. He was certified by the American Board of Pathology and was a fellow of the College of American Pathologists. He also was a member of the American Society of Clinical Pathologists.

Richard A. Goldyn, M.D.

Dr. Goldyn, 40, a Shelbyville physician, died March 16 at W. S. Major Hospital, Shelbyville.

He was a 1968 graduate of Indiana University School of Medicine.

Dr. Goldyn was an orthopedic resident at Lutheran Hospital, Fort Wayne, after which he served in the Navy from 1973 to 1975 and then began practicing in Shelbyville.

Vance J. Chattin, M.D.

Dr. Chattin, 75, a retired Washington surgeon, died Feb. 27 in Washington.

He was a 1935 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Chattin was a past president of the Daviess-Martin County Medical Society. He retired from practice in 1979.

Luman W. Bromley, M.D.

Dr. Bromley, 57, a Fort Wayne orthopedic surgeon, died March 7 at his Fort Wayne home.

He was a 1949 graduate of Indiana University School of Medicine and was a Navy veteran of World War II.

Dr. Bromley was certified by the American Board of Orthopaedic Surgery and was a member of the American College of Surgeons and the American Academy of Orthopaedic Surgeons.

Robert R. Beach, M.D.

Dr. Beach, 83, a retired Indianapolis general practitioner, died March 5 at his Indianapolis home.

He was a 1929 graduate of Indiana University School of Medicine and was an Army veteran of World War I.

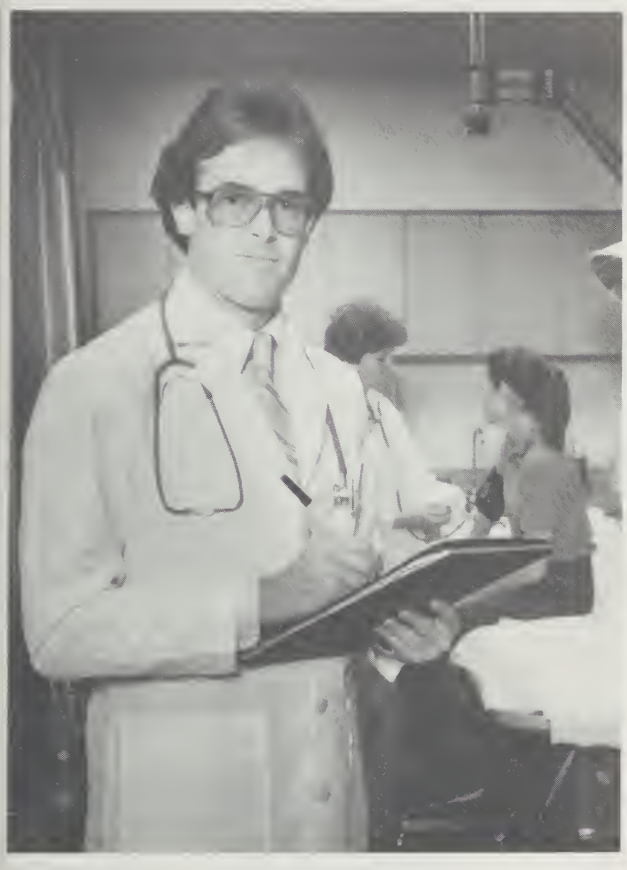
Dr. Beach was a member of the ISMA Fifty Year Club.

Julius W. Pastor, M.D.

Dr. Pastor, 77, a retired Evansville anesthesiologist, died March 2 at St. Mary's Medical Center, Evansville.

He was a 1930 graduate of the University of Louisville School of Medicine and was an Army veteran of World War II.

Dr. Pastor's memberships included the American Society of Anesthesiologists and the ISMA Fifty Year Club.



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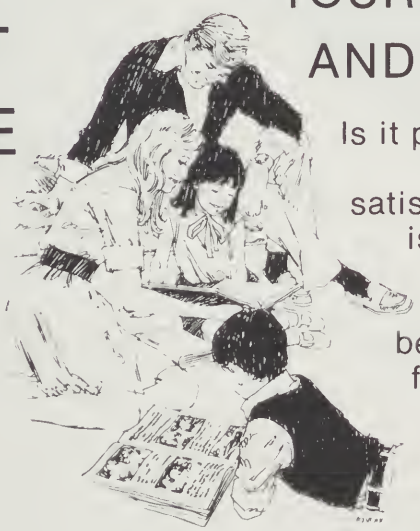
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The Columbia space shuttle was a triumph of teamwork. And along with Young and Crippen went Anusol-HC Cream to treat prior anorectal conditions aggravated by "G-Force" stresses of exiting and reentering the earth's atmosphere.

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Anusol-HC®
Suppositories/Cream with Hydrocortisone Acetate

*The #1 physician-prescribed product for hemorrhoids and other common anorectal disorders***

- ☐ *Antiinflammatory, to relieve itch, pain, and edema.*
- ☐ *Astringent, to protect against further tissue damage.*
- ☐ *Emollient, for easier bowel movements.*

Please see opposite page for brief summary of prescribing information.

**Meeting of Am Soc Colon/Rectal Surgeons, May 1980*
***Data on file, Marketing Research Dept, Parke-Davis*

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***TUCKS®* Pre-Moistened Hemorrhoidal/Vaginal Pads**

*The #1 hemorrhoidal** pad for added external relief and gentle cleansing.*

- ☐ *Soothes, cools, comforts, and cleanses irritated anorectal areas.*

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Hemorrhoids and other anorectal uses — TUCKS extra-soft cloth pads allow for the gentlest possible application to tender, inflamed, hemorrhoidal tissue. TUCKS are effective cleansing pads for everyday personal hygiene. Used on outer rectal areas, they remove residue that can bring on more irritation. Pads are premoistened with 50% witch hazel, 10% glycerin USP and de-ionized purified water USP which acts as a cooling, soothing lotion to help comfort sensitive anorectal tissue.

Vaginal Uses — Comforting as an adjunct in postoperative care after episiotomies and other vaginal surgery or when relief from vaginal itching, burning or irritation is required.

ANUSOL-HC® SUPPOSITORIES
Hemorrhoidal Suppositories with Hydrocortisone Acetate

ANUSOL-HC® CREAM
Rectal Cream with Hydrocortisone Acetate

Caution: Federal law prohibits dispensing without prescription.

Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25% bismuth resorcin compound, 1.75%, benzyl benzoate, 1.2%, Peruvian balsam, 1.8%; zinc oxide, 11.0 mg; also contains the following inactive ingredients: dibasic calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg, bismuth subgallate, 22.5 mg, bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg, zinc oxide, 110.0 mg, also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate in Anusol-HC helps to reduce hyperemia and swelling.

The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, and fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy: See "WARNINGS".

Pediatric Use: Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

Dosage and Administration: Anusol-HC Suppositories — Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove the tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories — boxes of 12 (N 0071-1089-07) and boxes of 24 (N 0071-1089-13) in silver foil strips with Anusol-HC printed in black.

Anusol-HC Cream — one-ounce tube (N 0071-3090-13) with plastic applicator.

Store between 15° - 30° C (59° - 86° F).
1089G010

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Nutritional status can be compromised by the trauma of surgery; and some operations interfere with the ingestion, digestion and absorption of food.*



Berocca Plus. A balanced formula for prophylactic or therapeutic nutritional supplementation. Berocca Plus Tablets provide: therapeutic levels of ascorbic acid and B-complex vitamins; supplemental levels of biotin, vitamins A and E, and five important minerals (iron, chromium, manganese, copper and zinc); plus magnesium. Berocca Plus is not intended for the treatment of specific vitamin and/or mineral deficiencies.

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*Shils ME, Randall HT: Diet and nutrition in the care of the surgical patient, chap. 36, in *Modern Nutrition in Health and Disease*, edited by Goodhart RS, Shils ME; Philadelphia, Lea & Febiger, 1980, p. 1084.

Please see summary of product information on reverse page.

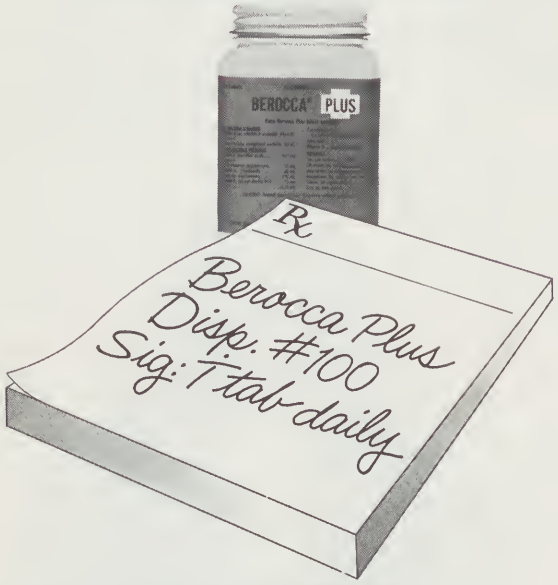
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THE MULTIVITAMIN/MINERAL FORMULATION



Before prescribing, please consult complete product information, a summary of which follows:
Each Berocca® Plus tablet contains 5000 IU vitamin A (as vitamin A acetate), 30 IU vitamin E (as *dl*-alpha tocopheryl acetate), 500 mg vitamin C (ascorbic acid), 20 mg vitamin B_1 (as thiamine mononitrate), 20 mg vitamin B_2 (riboflavin), 100 mg niacin (as niacinamide), 25 mg vitamin B_6 (as pyridoxine HCl), 0.15 mg biotin, 25 mg pantothenic acid (as calcium pantothenate), 0.8 mg folic acid, 50 mcg vitamin B_{12} (cyanocobalamin), 27 mg iron (as ferrous fumarate), 0.1 mg chromium (as chromium nitrate), 50 mg magnesium (as magnesium oxide), 5 mg manganese (as manganese dioxide), 3 mg copper (as cupric oxide), 22.5 mg zinc (as zinc oxide).
INDICATIONS: Prophylactic or therapeutic nutritional supplementation in physiologically stressful conditions, including conditions causing depletion, or reduced absorption or bioavailability of essential vitamins and minerals; certain conditions resulting from severe B-vitamin or ascorbic acid deficiency; or conditions resulting in increased needs for essential vitamins and minerals.
CONTRAINDICATIONS: Hypersensitivity to any component.
WARNINGS: Not for pernicious anemia or other megaloblastic anemias where vitamin B_{12} is deficient. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with vitamin B_{12} deficiency who receive supplemental folic acid and who are inadequately treated with B_{12}.
PRECAUTIONS: *General:* Certain conditions may require additional nutritional supplementation. During pregnancy, supplementation with vitamin D and calcium may be required. Not intended for treatment of severe specific deficiencies. *Information for the Patient:* Toxic reactions have been reported with injudicious use of certain vitamins and minerals. Urge patients to follow specific dosage instructions. Keep out of reach of children. *Drug and Treatment Interactions:* As little as 5 mg pyridoxine daily can decrease the efficacy of levodopa in the treatment of parkinsonism. Not recommended for patients undergoing such therapy.
ADVERSE REACTIONS: Adverse reactions have been reported with specific vitamins and minerals, but generally at levels substantially higher than those in Berocca Plus. However, allergic and idiosyncratic reactions are possible at lower levels. Iron, even at the usual recommended levels, has been associated with gastrointestinal intolerance in some patients.
DOSAGE AND ADMINISTRATION: Usual adult dosage: one tablet daily. Not recommended for children. Available on prescription only.
HOW SUPPLIED: Golden yellow, capsule-shaped tablets — bottles of 100.

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Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Allen, Donald R., Evansville
Alvis, David L., Indianapolis
Arata, Justin E., Fort Wayne
Arney, Amos, Michigan City
Aron, Titu, East Chicago
Arshad, Mohammad, Merrillville
Artis, Myrle E., Kokomo
Atkins, Clayton H., Greenwood
Atkins, Steven D., Greenwood
Bankoff, Milton L., Michigan City
Bossard, John W., Fort Wayne
Chan, Macario O., Frankfort
Conway, Louis W., Lafayette
Daftary, Ali A., Batesville
Danzl, Daniel F., Floyds Knobs
Dye, William E., Oakland
French, Charles R., Terre Haute
Gillespie, Douglas B., Terre Haute
Griffith, Harold R., Fort Wayne
Guttman, John B., Wakarusa
Hughes, Charles E., Beech Grove
Hummel, Russel M., Marion
Kaplan, Joshua M., Lafayette
Kheirbek, Ali O., East Chicago
Knight, Ernest L., Elkhart
Linderman, Richard B., Indianapolis
Medina, Herbert L., Munster
Menon, Mohan M., Fort Wayne
Miller, John D., Bluffton
Ott, Douglas E., Terre Haute
Pena, Adela P., Hammond
Penland, William R., Evansville
Pesarillo, Servando N., Kokomo
Pickett, Merle E., Fort Wayne
Pontaoe, Alejandro G., Evansville
Prasertwanitch, Yupadi, Granger
Pulcini, John D., Evansville
Rahman, Sheikh A., Lawrenceburg
Roberto, Benjamin V., Austin
Rosenberg, Gabriel J., Indianapolis
Ruoff, Andrew C., Indianapolis
Shah, Rekha B., Munster
Stogdill, William J., South Bend
Tower, James H., Shelbyville
Wilson, Robert J., Mooresville

Anxious patients improve in just a few days



And what is more reassuring to an excessively anxious patient than medication that promptly starts to relieve his discomforting symptoms? Valium® (diazepam/Roche) begins working within 30 to 90 minutes. Patients continue to improve in just a few days, and relief continues throughout the course of treatment.

There are other important benefits with Valium as well—along with its broad clinical range, Valium has an efficacy/safety profile that few, if any, drugs can match. This record has been achieved with extensive clinical experience, undoubtedly including yours. And, as you must have observed, side effects more serious than drowsiness, fatigue or ataxia rarely occur. Nevertheless, as with any CNS-acting agent, patients should be cautioned about driving, operating hazardous machinery or ingesting alcohol or other CNS-depressant drugs while taking Valium.

Yet another benefit Valium affords is flexibility. Available in 2-mg, 5-mg and 10-mg scored tablets, Valium enables you to titrate dosage to individual patient needs. For the geriatric patient, a starting dosage of 2 to 2½ mg once or twice a day is recommended. And, for patients who forget or skip medication, you can prescribe Valrelease™ (diazepam/Roche) 15-mg slow-release capsules, knowing that Valrelease will assure all the benefits of Valium 5 mg *t.i.d.* with the convenience of once-a-day dosage.

Discontinuation of Valium (or Valrelease) is typically as smooth as its start in short-term therapy. However, Valium and Valrelease should be discontinued gradually after more extended treatment. As you diminish dosage, the built-in tapering action of Valium and Valrelease will help avoid rapidly recurring anxiety symptoms and symptoms of withdrawal, and will help ease the patient's transition to independent coping when therapeutic goals have been achieved.

...that's one of the unique benefits of

Valium®

diazepam/Roche

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For a summary of product information, please turn the page.

ROCHE®

Valium® (diazepam/Roche) Ⓝ Tablets
Valrelease™ (diazepam/Roche) Ⓝ slow-release Capsules
Injectable Valium® (diazepam/Roche) Ⓝ

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome. *Oral forms* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures; tetanus; anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion.

The effectiveness of diazepam in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Tablets or capsules in children under 6 months of age; known hypersensitivity; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because their use is rarely a matter of urgency and because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL. Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral forms adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE. *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins,* i.e., *dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Injectable Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest; concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea; have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least 1/3, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs.

Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of diazepam, *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed and tolerated).

The clearance of diazepam and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

INJECTABLE. Although promptly controlled, seizures may return; readminister if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, observed in patients during and after diazepam therapy are of no known significance.

INJECTABLE. Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia. In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Dosage: Individualize for maximum beneficial effect.

ORAL. *Adults:* Anxiety disorders, relief of symptoms of anxiety—Valium (diazepam/Roche) tablets, 2 to 10 mg b.i.d. to q.i.d.; or 1 or 2 Valrelease capsules (15 to 30 mg) daily. Acute alcohol withdrawal—tablets, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; or 2 capsules (30 mg) the first 24 hours, then 1 capsule (15 mg) daily as needed. Adjunctively in skeletal muscle spasm—tablets, 2 to 10 mg t.i.d. or q.i.d.; or 1 or 2 capsules (15 to 30 mg) once daily. Adjunctively in convulsive disorders—tablets, 2 to 10 mg b.i.d. to q.i.d.; or 1 or 2 capsules (15 to 30 mg) once daily.

Geriatric or debilitated patients. Tablets—2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated (see Precautions). Capsules—1 capsule (15 mg) daily when 5 mg oral Valium has been determined as the optimal daily dose.

Children: Tablets—1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use in children under 6 months). Capsules—1 capsule (15 mg) daily when 5 mg oral Valium has been determined as the optimal daily dose (not for use in children under 6 months).

INJECTABLE. Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)

For dosages in infants and children see below; have resuscitative facilities available.

I.M. use: by deep injection into the muscle.

I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., *dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcohol withdrawal, 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses); in children *administer I.V. slowly*; for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary; in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available.

Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary, keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. Infants (over 30 days) and children (under 5 years), 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). Children 5 years plus, 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred); repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.

In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure; if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M.; in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectable form, patient may be placed on oral form if further treatment is required.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure; employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension. Dialysis is of limited value.

How Supplied:

ORAL. Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100 and 500; Prescription Paks of 50, available in trays of 10; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25 and in boxes containing 10 strips of 10.

Valrelease (diazepam/Roche) slow-release capsules—15 mg (yellow and blue), bottles of 100; Prescription Paks of 30.

INJECTABLE. Ampuls, 2 ml, boxes of 10; Vials, 10 ml, boxes of 1; Tel-E-Ject® (disposable syringes), 2 ml, boxes of 10. Each ml contains 5 mg diazepam, compounded with 40% propylene glycol, 10% ethyl alcohol, 5% sodium benzoate and benzoic acid as buffers, and 1.5% benzyl alcohol as preservative.

ROCHE®

CME QUIZ
Nephrolithiasis

CONTINUED FROM PAGES 313-318

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Div. of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Which of the following is/are conducive to renal calculus formation?
   a. Proteus pyelonephritis
   b. Prolonged recumbency
   c. Gout
   d. Hyperparathyroidism
   e. All of the above

2. In a patient with "idiopathic" calcium stone disease, the most commonly encountered urinary abnormality is:
   a. Hyperoxaluria
   b. Hypercalciuria
   c. Hyperuricosuria
   d. Hypercalciuria plus hyperuricosuria
   e. No abnormality

3. Of the following entities which is *not* a common cause of nephrocalcinosis (renal parenchymal calcification)?
   a. Medullary sponge kidney
   b. Renal tubular acidosis
   c. Chronic pyelonephritis
   d. Primary hyperparathyroidism

4. Which of the following organisms is most likely to be found in association with a struvite calculus?
   a. E. Coli
   b. Proteus
   c. Klebsiella
   d. Staphlococcus
   e. Enterococcus

5. Which of the following is not a commonly encountered renal calculus?
   a. Calcium oxalate
   b. Struvite
   c. Calcium phosphate
   d. Magnesium oxide
   e. Uric acid

6. A variety of factors predispose to the formation of renal calculi. Which one of the following does not?
   a. Parathyroid adenoma
   b. Strict bedrest without exercise or weight bearing for 2 months
   c. Pancreatic islet cell tumor
   d. Urinary infection with proteus vulgaris
   e. Gout

7. All but *one* of the following urinary calculi may be detected on a good quality KUB:
   a. Uric acid
   b. Cystine
   c. Calcium oxalate
   d. Struvite

8. An indication for *immediate* surgical intervention in the case of a ureteral calculus would be:
   a. Relatively high degree of obstruction proximal to the stone
   b. Severe pain
   c. Association of infection (acute pyelonephritis with fever) with obstruction
   d. Presence of numerous small stones in the renal pelvis
   e. Bilateral renal calculi

9. In a patient with renal lithiasis the most common cause of hypercalcemia is:
   a. Hyperthyroidism
   b. Sarcoidosis
   c. Disseminated malignancy
   d. Primary hyperparathyroidism
   e. Immobilization

10. The most commonly occuring renal calculus is:
    a. Cystine
    b. Cysteine
    c. Calcium oxalate
    d. Calcium phosphate
    e. Struvite

April CME Quiz Answers

Following are the answers to the CME quiz that appeared in the April 1983 issue of THE JOURNAL: "The Diagnosis and Management of Impotence," by John J. Mulcahy, M.D.

1. c	6. a
2. a	7. a
3. c	8. a
4. b	9. b
5. d	10. a

Answer sheet for Quiz: (Nephrolithiasis . . .)

1. a b c d e	**6. a b c d e**
2. a b c d e	**7. a b c d**
3. a b c d	**8. a b c d e**
4. a b c d e	**9. a b c d e**
5. a b c d e	**10. a b c d e**

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

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To be eligible for this month's quiz, send your completed, signed application before June 10, 1983 to the address appearing at the top of this page.

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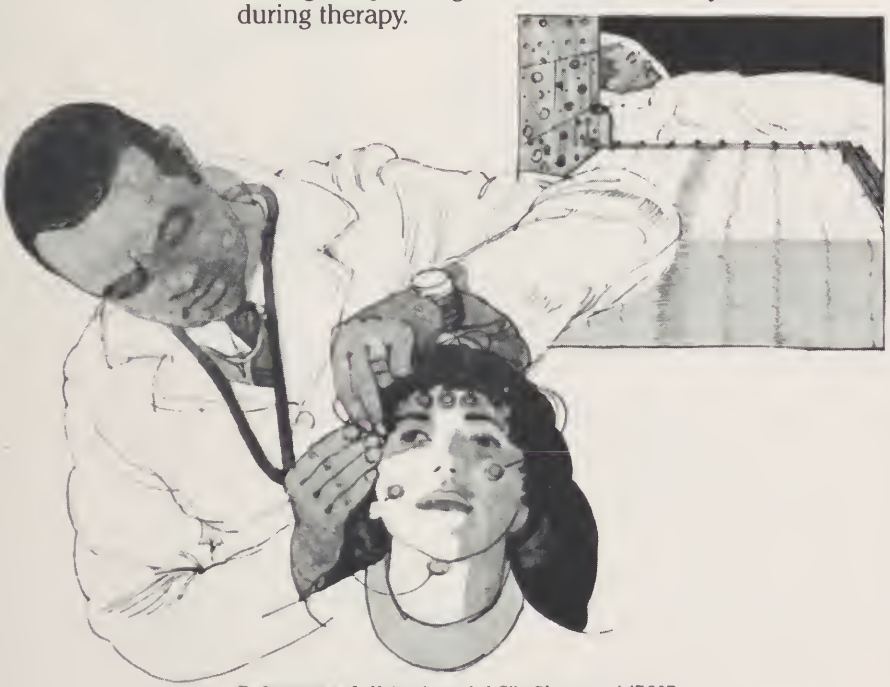
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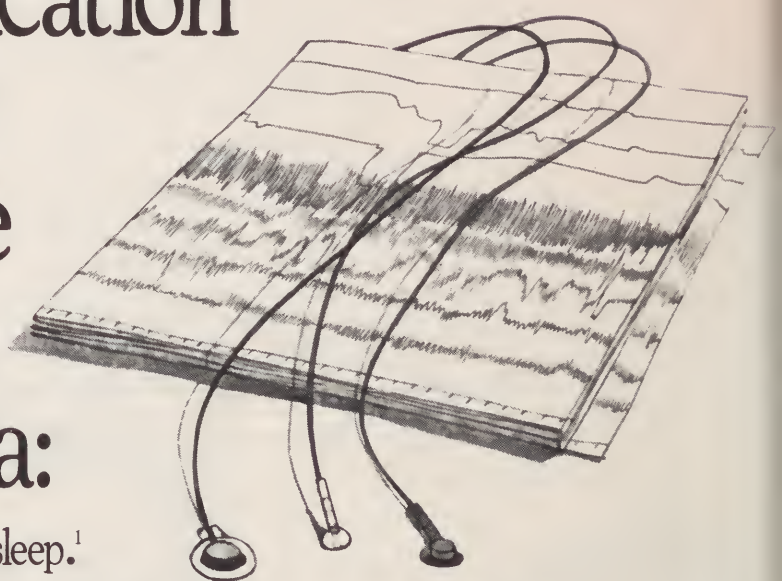
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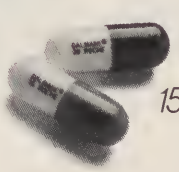
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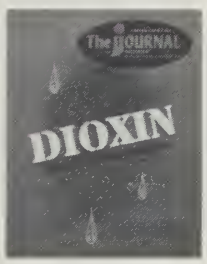
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ABOUT THE COVER

In this issue, Dr. William G. Dunagin, a 1975 graduate of the University of Kansas School of Medicine, discusses the immediate, delayed and long-term effects of dioxin on human health. He is a diplomate of the American Board of Dermatology and a fellow of the American Academy of Dermatology.

—COVER BY FRED KINGHORN

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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

MANY YEARS AGO a painting of an apparently forgotten individual was removed from the wall on which it had been hanging for many years, to make room for another, and was stored away in a janitor's closet among the mops and buckets and brooms. It remained there for many more years, accumulating dirt and dust and grime, and on occasion receiving the brunt of a wet mop or a broom handle, carelessly thrown into the corner where the picture stood. My attention was directed to this item about 10 years ago as being of potential value to the Museum, but when it was removed from the closet its usefulness appeared to be exceedingly limited. I thought the painting had been removed. I saw only a battered square frame, measuring 41″ by 31″, with an oval opening covered by what appeared to be a black, oily, grimy, dirty piece of heavy torn paper containing several holes.

In due time an artist was asked to look at the frame and give his opinion as to its value. He was quite impressed with the frame, and stated that restoration would not be difficult. It was not the frame that excited his enthusiasm, however, but rather the filthy torn cover of the frame's oval opening.

The artist ran the tips of his trained fingers over the blackened surface. "I think there is a painting under all of this," he said. There was nothing visible to confirm this thought. "I think we ought to clean it and see what's here," he added.



FIGURE 1

"What about this big rip, and these holes?" I asked. "And look how brittle it all is."

"We'll have to do something about that," he replied. He then got his camera and took the photograph shown on the left (*Fig. 1*).

Weeks later the frame was returned completely restored, and what had been originally thought to be a piece of dirty, dusty oil paper proved to be a canvas, now cleaned and backed, showing a very handsome portrait. The transformation was unbelievable! (*Fig. 2*).

But who was this man? For a vareity of reasons, I suspected this to be a physician associated with one of the early proprietary schools, probably one at Fort Wayne. I was correct on the first assumption, wrong on the second.

The answer was to remain an enigma for another 10 years, during which time, like an unknown soldier, he has been hanging on the wall of the amphitheater unidentified, but representative of early medical education in Indiana.

Copies of this portrait were sent to various individuals, societies, and libraries for identity; and the painting has been shown on this page before (69:8, 554, 1976), requesting the reader's assistance, but to no avail.

Last month we received an old manila envelope containing miscellaneous items consisting of a few yellowed type-written pages, a pamphlet or two, and some old post cards announcing medical meetings. On one of the yellowed typewritten pages was the following note:

> "Portraits . . .
> Dr. Thomas B. Harvey, 41 x 31 in. . . .
> Oval Portrait in square frame. Full dark beard and dark hair."

Could it be? The description of the square frame with the oval opening supported the possibility. A tape measure soon verified the sizes to coincide. The next thing was to find a photograph of Harvey. This was easy enough to do. He was found in the Wishard collection, in Stone's biographical reference, and on the wall of the ISMA office (he was president of the Indiana Medical Society, 1880-1881).



FIGURE 2

In all of these photographs he is older than in the portrait, but the likeness is not difficult to verify.

Now, who was Thomas B. Harvey? Stone provides the following information: He was born in Clinton County, Ohio, Nov. 29, 1827, and died Dec. 5, 1889. He graduated from the Ohio Medical College in 1851, and set up practice in Plainfield, Ind. During the Civil War he was Examining Physician for the Central District of Indiana. Dr. Harvey was one of the organizers, in 1869, of the Indiana Medical College (oldest of the proprietary schools, which united to form I.U. School of Medicine) and held the chair of Diseases of Women. He taught in the City Hospital (now Wishard) and in the City Dispensary. He helped organize the Hendricks County Medical Society, and was the first president of the Indianapolis Academy, which later merged with the Marion County Medical Society. He was elected president of the Indiana State Medical Society in 1880. He was the author of numerous papers, mostly on the subject of diseases of women.

Dr. Harvey died of a stroke of apoplexy while delivering his last lecture at the Medical College of Indiana.

The artist of this portrait was George W. White of Hamilton, Ohio.

The artist who did the restoration is William G. Ashby.

Disspelling Some Myths About Social Security



DONALD F. FOY
Executive Director
Indiana State Medical Association

A Message from the Executive Director

THERE ARE SOME 36 million people currently receiving Social Security benefits. Most of these people depend on these benefits for their basic income. I believe everyone (including both of our major political parties) recognizes the importance of the program, and there isn't any question at all that Social Security is here to stay.

Some politicians say we don't have any real problems with the Social Security system. This is simply not true. The problems are very real, but there are solutions and the solutions are not nearly as painful as many people imagine. We need legislative action to correct these problems and that will require both political parties to work together. If Social Security continues to be a political football, the problems will become worse.

Motivating our lawmakers to take the actions that are needed is difficult because there is so much misunderstanding about Social Security. For instance, most people believe they have paid for the benefits they receive from Social Security. They believe they are just getting back money they have paid into the program. They are mistaken, however. The average wage earner, with a spouse who does not work outside the home, gets back all his contributions within just 11 months after he retires. Individuals who retired at age 65, who paid the maximum Social Security taxes right along and who have no spouses, will receive benefits equal to their total contributions in 1½ years.

In 1950, 16.5 workers supported each Social Security beneficiary. Today the number of workers who support each beneficiary is 3.2. When the program was begun, the number of people receiving benefits was relatively small. Today we have many more older people and they are becoming a greater portion of our population. When the "baby boom" generation retires, there will only be two workers to pay the benefits of each beneficiary and even fewer if the birth rate does not increase.

During the past three years average wages increased by 30% while Social Security benefits, which are tax free, increased by 40%. The question that has to be raised then is whether the benefits of people on Social Security should increase faster than those who are paying for the benefits? If the increases in Social Security benefits had been held to the level of wage increases, the cost of the program this year would be a staggering $11 billion less.

In 1940, the life expectancy of a person age 65 was 12.8 years. Today a person who is age 65 can expect to live another 16.6 years. Life expectancy is increasing and at an accelerated rate. This may be great news, but it is creating a tremendous financial drain on the Social Security system which must pay benefits for many more years than was originally projected. The increase in longevity added about $30 billion to the cost of Social Security last year.

In 1981, Social Security payments represented more than 25% of the national budget. Last year, Social Security benefits cost $184 billion. This year the cost will exceed $200 billion. That is more than one-quarter of all federal spending

CONTINUED ON PAGE 428

Why a Prominent Cardiovascular Specialist Prescribes Kendrick Surgical Stockings

We couldn't describe the benefits of our Kenlastic Surgical Stockings any better than this...

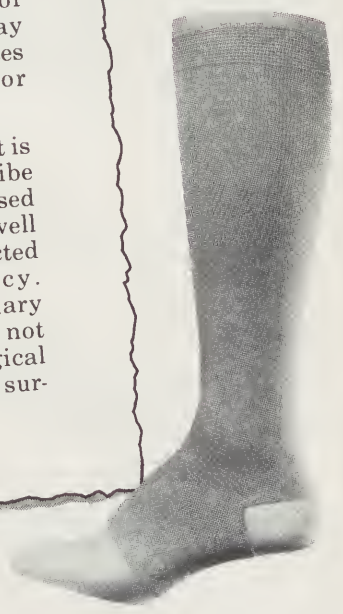
"I've prescribed Kenlastic elastic stockings regularly since I opened practice 30 years ago.

"I use them principally to control venous insufficiency, usually the kind that is of the postplebitic type. This condition requires a heavy elastic stocking. I generally prescribe your medium-weight or heavy-weight hose, and almost always it is the below-knee, closed-heel, open-toe type. Most cases of chronic venous insufficiency do not require support above the knee, so the below-knee length is usually adequate.

"One of the great advantages of your stocking is that it is one-way stretch hose. This feature eliminates the necessity of a garter belt or supporter belt.

"The durability of your product is another assest...I usually prescribe the heavy weight, often with closed toe, for lymphedema cases, as well as for those who have contracted chronic venous insufficiency. Patients who have severe primary varicose veins and who have not had adequate relief from surgical treatment often benefit from surgical stockings."

Kenlastic Stockings are available in 4 weights and in garter, knee and thigh lengths.



This letter excerpt from a prominent Indianapolis cardiovascular specialist just about says it all.

When we receive your order with leg measures according to the diagram, the measures are revised according to carefully calculated varying degrees of pressure to provide for corrective support. The greatest pressure is exerted at the ankle, and pressure is gradually decreased upward along the leg.

We might add that Kendrick has been applying the concept of GRADUATED PRESSURE for well over half a century. Every Kendrick stocking is shaped accordingly to provide firm corrective support for varicose veins, phlebitis, statis problems, etc.

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WHAT'S NEW?

"Physicians' Drug Alert" is a monthly newsletter which pertains to adverse drug reactions. It gives all the information needed to keep up with drug reactions and interactions, provides a guide to rational drug administration, alerts to exact signs that may indicate an adverse reaction, and offers authoritative advice on how to avoid adverse reactions. The editors and members of its Editorial Advisory Board are national authorities in pharmacology and therapeutics. Charter subscribers will receive a loose-leaf binder to hold each monthly issue.

The 3M Company has designed a new surgical mask that features asepsis, clear vision and comfort. It provides 99.6% filtration efficiency. Its largeness and extra length of ties go for coverage and comfortable fit for faces of various shapes and sizes. Called the Filtron surgical mask.

Litton has a stand-alone bedside unit that can record and track up to eight patient vital signs simultaneously. In addition, the monitors can record trends minute-by-minute or hour-by-hour for up to 24 hours. The electronic monitor is called SMC 108™. It announces information in video screen format or hard copy printout.

Cutter Medical has developed a low-volume I.V. filter with a 0.22 micron screen for use in situations in which standard-sized filters may be too large and unwieldy. The new Pureflo™ filter has applications in pediatric, intensive care/critical care or oncology when low-volume filtration is desired.

Med-Safe Supply has a new MED-SAFE Sharps Disposal System, which improves safety, eliminates labor and reduces costs associated with breaking, storing and disposing of contaminated needles and syringes. The device has a rigid polyethylene wall that needles cannot penetrate. The one-way valve that admits the syringe and needle will accommodate syringes up to 60 cc capacity. When full the entire device may be incinerated, autoclaved or compacted. Handling personnel do not come into contact with contaminated sharps.

A new radiant heat shield is capable of reducing the loss of water and heat in premature babies in incubators. The semi-tubular shields are made in Holland by Katan, B.V., a manufacturer of medical instruments. The shields reflect heat radiation but are permeable to the near infrared zone. The trade name is "Medka," and includes four models of oxygen hoods.

Datamedics of North America announces a patented concept in medical recordkeeping for the individual. A plastic-coated wallet size card that contains a microfilm showing the holder's medical history, along with vital information, is issued to each member. Also on microfilm is the patient's physician's phone number, organ donations if any, blood type and insurance data. The system is named "Rescue Card." Membership costs $15. With the card come five pressure sensitive decals for car window, front door of residence, and wallet. A duplicate card costs $8 and may be placed next to home phone. The microfilm may be read with a microfilm reader, a low-powered microscope or a hand viewer.

Abbott Laboratories has established a major new business unit to serve the home health care market. Abbott's Home Health Care Division will have responsibility for all the company's products sold in the home market. Included are products for medical nutritional support and for continuous ambulatory peritoneal dialysis (CAPD). In 1982, Abbott established a direct-to-patient delivery system for its CAPD line. The Abbott home nutritional support system consists of the items necessary for either oral or intravenous nourishment in the home.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Control-o-fax offers the "Practice Builder," a complete business system. It includes training of the office staff in proper methods and office procedures. It also includes the billing forms, appointment calendars and the paperwork for processing insurance claims.

The 3M Company announces a cost-effective, convenient pack that contains six draping components essential to most arthroscopic procedures. The 3M 1095 Arthroscopy Pack features a specially designed isolation sheet that isolates the operative leg and collects irrigation fluid without interferring with the surgeon's work.

Implant Technologies announces FDA approval for marketing COMMUNItrach I™ tracheostomy tube. It is a talking trach tube that permits verbal communication while on a respirator.

Midmark introduces the Power 415 Lithotomy Chair System. The comfortable chair will adjust from chair position to lithotomy, pelvic tilt, table, Trendelenberg and reverse Trendelenberg. Leg supports adjust laterally to accommodate all patients. The vinyl upholstery is in various colors to fit the room decor. A Midmark Procedures Cart and Air Lift Stool compliment the chair and complete the system.

Vaportek introduces commercial strength "BIO-C" in quart bottles. When diluted with 25 parts of water the BIO-C, when applied to odorous areas, breaks down and eliminates odor-causing bacteria. Useful in drains, fountains, walls, floors, carpeting and septic tanks. It also digests grease deposits and other contaminants and stimulates growth of beneficial bacteria.

Instromedix has the latest in diagnostic 12 lead ECG instruments. The 12 Lead Transmitter and 12 Lead Coupler provides the ability to transmit and receive electrocardiograms from one ECG machine to another over the telephone. The two instruments are powered by a 110-volt wall plug.

ANNOUNCING...

The Deaconess Hospital Center for Reconstructive Hip and Knee Surgery

It's an answer to a regional need.

The Deaconess Hospital of Cincinnati is pleased to offer a new regional service for patients undergoing total joint replacement. Initiated in November, 1982, by the Hospital in cooperation with its Medical Staff, a comprehensive program has been developed by the orthopedic surgeons of the staff in conjunction with internists, rheumatologists and other support personnel.

The program includes:

1. Pre-operative evaluation and teaching.
2. A modern, versatile, and completely equipped operative suite that allows maximum flexibility on the part of the surgeon.
3. Careful post-operative monitoring.
4. Coordinated discharge planning.
5. Inclusion of all patients into a computerized data base to facilitate clinical research.



Complicated cases are welcome.

The Orthopedic Staff is highly experienced in all aspects of joint replacement surgery and welcomes complicated cases, including those patients who have had previous surgery.

Any physician can register his patient in the program by contacting The Deaconess Hospital Center for Reconstructive Hip and Knee Surgery.

dh THE DEACONESS HOSPITAL

CENTER FOR RECONSTRUCTIVE HIP AND KNEE SURGERY

311 Straight Street • Cincinnati, OH 45219 559-2597 (local)
1-800-582-2222 (toll free, Ohio) 1-800-543-3344 (toll free, out-of-state)

FUTURE FILE

Critical Care Lecture

Max Harry Weil, M.D., Ph.D., noted lecturer on critical care, will speak in Evansville Tuesday, July 19.

Topics will be Shock, Electromechanical Dissociation, and ICU Costs and Ethics. CME credit is being arranged through Deaconess Hospital.

For more information, contact Alan T. Marty, M.D., Treasurer, Tri State Critical Care Society, Inc., (812) 423-2395.

Laser Medicine

The Fifth International Congress of Laser Medicine and Surgery meets Oct. 7 to 9 in the Westin Hotel, Detroit. Full information may be obtained from Charles B. Slack, Inc., 6900 Grove Road, Thorofare, N.J. 08086.

South Carolina Seminar

A combined CME and vacation seminar for physicians and their families will be conducted Oct. 2-7 at Mariner's Inn on Hilton Head Island, S.C. ISMA members are invited to participate.

The seminar, sponsored by the South Carolina Medical Association, in cooperation with the faculty of the Medical School of the Medical University of South Carolina, is accredited for 28 hours of CME credit. Registration is $320.

Contact J. Charles Johnson, P.O. Box 11188, 3325 Medical Park Road, Columbia, S.C. 29211—(803) 252-6311.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Community Cancer Care

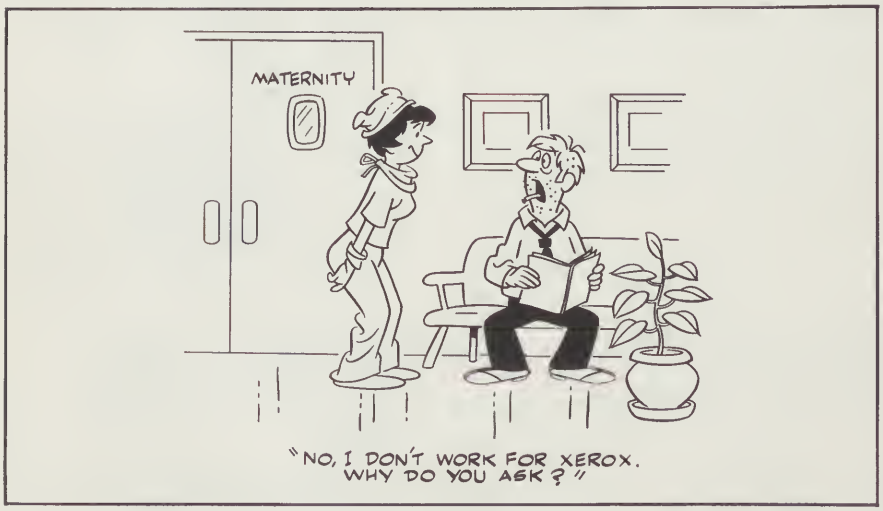
The Second National Seminar on Community Cancer Care will be held at the Hyatt Regency, Indianapolis, Sept. 16, 17 and 18. The purpose of the seminar is to encourage and give direction to the development of community initiated cancer care programs. Round table and open forum discussions will provide participants an opportunity to gain in-depth information.

For information, write Office of Continuing Medical Education, Methodist Hospital, 1604 N. Capitol Ave., Indianapolis 46202. A complete program will be furnished.

Pediatrics Symposium

The 11th annual Fall Pediatric Surgery/Pediatrics Symposium concerning the "Care of the Seriously Ill Child" will be sponsored by the I.U. School of Medicine at the Indianapolis Atkinson Hotel, Sept. 21 and 22. Numerous guest speakers from pediatric centers of the U.S. will participate.

For information, write Dr. Jay L. Grosfeld, Riley Hospital, 702 Barnhill Drive, Indianapolis 46223 or phone (317) 264-4681.



Clinical Neurology

Vanderbilt University School of Medicine will conduct its sixth annual Symposium on Contemporary Clinical Neurology July 19 to 23 at the Hyatt Hotel, Hilton Head Island, S.C.

Write Mrs. Joan Sullivan, Department of Neurology, Vanderbilt University, Nashville, Tenn. 37212.

NIH Consensus Conference

A "Consensus Development Conference" on "The Treatment of Hypertriglyceridemia" will be conducted by the National Institutes of Health Sept. 27 to 29. The meeting will be in the Masur Auditorium of the Warren Grant Magnuson Clinical Center at Bethesda, Md. Items to be covered include the evidence that connects the 'long name' with disease, which patients should be treated, guidelines for dietary and drug therapy, what may be achieved by treatment and what research should be planned.

Contact Mr. Peter Murphy, Prospect Associates, 2115 E. Jefferson St., Suite 401, Rockville, Md. 20852—(301) 468-6555.

Bowel Disease Symposium

"Inflammatory Bowel Disease: Newer Developments in Medical Treatment, Pathology, and Operative Management" is the title of a symposium for physicians to be presented Oct. 14 in Birmingham, Alabama. The fee is $40, which includes lunch.

Contact Mrs. Dena Metts, South Highlands Hospital, 1127 S. 12th St., Birmingham, Ala. 35205—(205) 250-7703.

Breastfeeding Seminar

The Eleventh Annual Seminar for Physicians on the subject of breastfeeding will be held July 21 to 23 at the Radisson Muehlebach Hotel, Kansas City, Missouri. The registration fees vary between members and non-members and run from $200 to $275, with an advance discount of $175 to $250 if postmarked before June 20.

For details contact the La Leche League International, 9616 Minneapolis Ave., Franklin Park, Ill. 60131—(312) 455-7730.



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See next page for brief summary of prescribing information.

Measure RUFEN® (ibuprofen) against "standard" mild to moderate pain

Dental pain and episiotomy pain are predictable, reproducible "standards" that make possible objective comparisons of effectiveness of different analgesic agents.

- Measured against 15, 30 and 60 mg doses of codeine phosphate in a double-blind study of 287 patients, 400-mg doses of ibuprofen proved "significantly better than codeine on almost all pain intensity, degree of relief and duration of analgesia parameters."[2]
- Measured against a propoxyphene-acetaminophen combination for pain relief after 3rd molar extractions, ibuprofen proved equally effective and caused fewer side effects. Ibuprofen was associated with faster recovery, evidenced by more rapid reduction of trismus and return to normal function.[3]
- Measured against post-episiotomy pain in 30 patients, "ibuprofen was effective in treating the swelling as well as pain...during the first and worst days. Therefore, it is not only the analgesic but also the anti-inflammatory effect of ibuprofen that are the beneficial factors..."[4]

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• no narcotic risk, red tape, records	• narcotic precautions required
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References:

1. Hart FD, Huskisson EC, Ansell BM in Hart FD (editor): Drug Treatment of the Rheumatic Diseases, 2nd Ed, Adis Press, Balgowlah, Australia, 1982, p. 30.
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4. Taina E: Curr Med Res Opinion, 7:423-428, 1981.

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INDICATIONS AND USAGE: Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in the long-term management of these diseases. Safety and effectiveness have not been established for Functional Class IV rheumatoid arthritis.

Relief of mild to moderate pain. Treatment of primary dysmenorrhea.

CONTRAINDICATIONS: Patients hypersensitive to ibuprofen, or with the syndrome of nasal polyps, angio-edema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory drugs (see WARNINGS).

WARNINGS: Anaphylactoid reactions have occurred in patients hypersensitive to aspirin (see CONTRAINDICATIONS). Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration, perforation, or gastrointestinal bleeding can end fatally, however, an association has not been established. Rufen should be given under close supervision to patients with a history of upper gastrointestinal tract disease, and only after consulting the ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be attempted. If Rufen must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If developed, discontinue Rufen and administer an ophthalmologic examination.

Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy, this therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: *Coumarin-type anticoagulants.* The physician should be cautious when administering Rufen to patients on anticoagulants.

Aspirin. Concomitant use may decrease Rufen blood levels.

PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS: Incidence greater than 1%. Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4 to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence). Central Nervous System: dizziness*, headache, nervousness. Dermatologic: rash* (including maculopapular type), pruritus. Special Senses: tinnitus. Metabolic: decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS). *Incidence 3% to 9%.

Incidence less than 1 in 100. Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. Central Nervous System: depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma. Dermatologic: vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome and alopecia. *Special Senses:* hearing loss, amblyopia (blurred and/or diminished vision, scotomata and/or changes in color vision) [see PRECAUTIONS]. Hematologic: neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura eosinophilia, decreases in hemoglobin and hematocrit. Cardiovascular: congestive heart failure in patients with marginal cardiac function, elevated blood pressure. Allergic: syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasms (see CONTRAINDICATIONS). Renal: acute renal failure in patients with preexisting significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria. Miscellaneous: dry eyes and mouth, gingival ulcers, rhinitis.

Causal relationship unknown. Gastrointestinal: pancreatitis. Central Nervous System: paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri. Dermatologic: toxic epidermal necrolysis, photoallergic skin reactions. Special Senses: conjunctivitis, diplopia, optic neuritis. Hematologic: bleeding episodes. Allergic: serum sickness, lupus erythematosus syndrome, Henoch-Schonlein vasculitis. Endocrine: gynecomastia, hypoglycemia. Cardiovascular: arrhythmias (sinus tachycardia, bradycardia, and palpitations). Renal: renal papillary necrosis.

OVERDOSAGE: Acute overdosage, the stomach should be emptied. Rufen is acidic and excreted in the urine, alkaline diuresis may benefit.

DOSAGE AND ADMINISTRATION: Rheumatoid arthritis and osteoarthritis, including flareups of chronic disease: Suggested dosage 400 mg t.i.d. or q.i.d.

Dysmenorrhea: 400 mg every 4 hours as necessary.

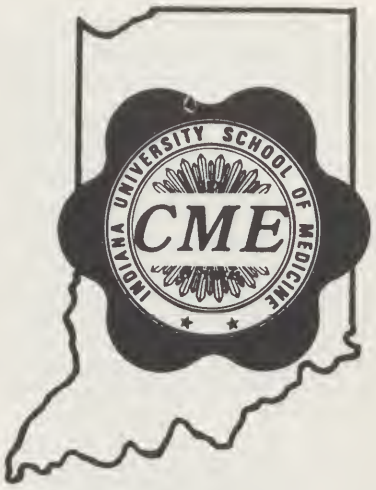
Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for the relief of pain. *Do not exceed 2,400 mg per day.*

CAUTION: Federal law prohibits dispensing without prescription.

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Popliteal Cysts and Calf Swelling: A Diagnostic Dilemma

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POPLITEAL CYSTS are common, and can mimic several other important medical problems in the lower extremity, including deep vein thrombophlebitis, hematoma of the calf muscle, popliteal artery aneurysm, intermittent claudication, varicose veins, and even edema from cardiac or renal failure. This entity should therefore be of interest to primary care physicians and to others who care for patients with lower extremity complaints. Each year our rheumatology service sees six to 10 cases of "pseudothrombophlebitis" due to popliteal cysts which had been initially misdiagnosed and often treated with anticoagulants, sometimes with resultant bleeding problems. Familiarity with popliteal cysts and their complications should allow more accurate diagnosis, better initial management, and avoidance of inappropriate therapy.

Etiology

As you will recall, a bursa is typically an anatomically defined potential cavity adjacent to a joint, and sometimes a communication between the bursa and the associated joint is also present. In other cases, a bursa-like structure may be newly created by herniation of the joint synovial membrane into adjacent tissues. In either case, the anatomy of the communication between the joint and the potential cavity may allow only one-way flow of fluid, from the joint to the bursa. If a bursa is distended by fluid, a cyst results.

Many potential bursae exist about the knee. There is an anatomical bursa lying posterior to the knee, between the gastrocnemius and semiembranosus muscles, and in about 40% of normal knees this bursa can be shown to have a potential valvular communication that can allow passage of fluid to the bursa from the knee joint. This is the bursa that is usually responsible for a popliteal cyst, in the typical medial position behind the knee. There is another bursa, lying in a more lateral position in the popliteal space, the popliteus bursa, which can also less commonly cause a cystic swelling. As noted

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above, any posterior herniation of the knee joint synovium can also lead to cyst formation.

Normal resting pressures in the knee synovial space are low, around 6 to 33 mm/Hg, but with certain maneuvers, e.g., a deep knee bend, pressures over 1,000 mm/Hg can occur. If fluid develops in the knee joint, these higher pressures can displace fluid into an adjacent bursa if the potential communication is there. The presence of a popliteal cyst may actually allow excess fluid to be displaced and help "spare" the knee joint from higher pressures. The one-way communication that is frequently present may allow for higher sustained pressures to exist in the popliteal cyst than in the knee joint space itself. Once fluid is trapped in the bursa, it may be reabsorbed slowly, leaving behind a fibrin-enriched content. In the case of inflammatory knee effusions, the cyst material itself may be quite inflammatory and irritating in nature. This may lead to some of the prominent inflammatory findings seen with a ruptured cyst.

Any cause of fluid in the knee joint could lead to formation of a symptomatic popliteal cyst. The most common cause appears to be rheumatoid arthritis, followed by osteoarthritis and menisceal tears. However, other causes have included septic arthritis, psoriasis, gout, and villonodular synovitis. In rheumatoid arthritis, the knee synovium is less compliant than in the normal joint, and effusions can generate higher pressures with lower volumes.

Popliteal cysts extending down farther than the popliteus bursa are considered to be "dissected cysts" and may actually extend down the calf to the ankle. A cyst that shows synovial fluid leakage is considered to be a "ruptured cyst." These changes may be acute, subacute or chronic. While there is usually an associated underlying cause for the cyst, a ruptured or dissecting popliteal cyst may occur as the first indication of anterior knee joint disease. Some abnormality of the knee exam such as effusion, tenderness or mechanical abnormality is almost always detectable, however.



Arthrography of a popliteal cyst in a patient with chronic leg swelling. A connection between the anterior knee and the cyst can be demonstrated.

Synovial leakage or dissection may also occur into the thigh as well, although this would appear much less common than calf cysts.

Clinical Syndromes

Most patients who present with symptomatic popliteal cysts will have a history of knee joint problems. Frequently, the symptoms will draw attention to the anterior knee joint, and the posterior knee may be ignored initially. However, a ruptured or leaking popliteal cyst may be the first indication of knee joint pathology. Cysts and symptoms can be bilateral.

A distended popliteal cyst may present as a feeling of tightness about the knee. The patient may note a bulge behind the knee or give a history of knee swelling. Swelling of the calf and ankle may occur very gradually with dissection or leakage. This may be due to compression of the popliteal veins. However, the patient may give a history of the posterior bulge disappearing acutely with the onset of pain. If the synovial cyst ruptures, differentiation from venous disease may be very difficult with rapid swelling and pain occurring in both. Secondary venous compression can lead to the presence of a Homans' sign and tenderness of the calf.

Since distension can occur as far down as the ankle, tender "cord-like" structures may be palpated. This makes differentiation from thrombophlebitis very difficult. Tense swelling of the popliteal cyst may cause flexion deformities of the knee. Swelling in the popliteal fossa can be associated with popliteal nerve compression.

Irritating fluid in the calf itself can lead to bleeding. The presence of a crescent-shaped hematoma around the malleolus may be another indication of a ruptured popliteal cyst.

Diagnosis

The popliteal fossa is most easily palpated with the knee in about 90° of flexion. However, some cysts will be felt poorly in this position and the fossa should be palpated with the patient standing and lying down as well. While popliteal cysts may occur bilaterally, comparison with the opposite knee may be very helpful in some patients when the presence of a cyst is suspected.

The cyst may fill the space between the semimembranosus muscle tendon and the medial head of the gastrocnemius in the medial aspect of the popliteal fossa. It tends to extend medial to lateral. Cysts formed from the popliteus bursa will occupy the lateral popliteal fossa. Cysts may feel fluctuant or almost solid, depending on the tension of the swelling. Occasionally, transillumination may be quite helpful. In most cases, careful examination of the anterior knee shows signs of joint effusion or disease.

It is helpful to do a synovial fluid analysis. This allows for evaluation of the degree of synovial inflammation, absence or presence of crystals such as in gout, and examination for the possibility of infection.

It is obvious that in some patients physical examination alone will not differentiate between the possibility of a ruptured popliteal cyst and true deep vein thrombophlebitis. Likewise, it has been shown that radiofibrinogen studies do not clearly differentiate between acute throm-

bophlebitis and an irritative leakage of a synovial cyst.

In all patients who have *any* evidence of anterior knee joint disease, two procedures have been very helpful in differentiating these diagnostic possibilities. Ultrasonography is an efficient way of evaluating the popliteal fossa for popliteal cysts if major leakage or rupture has not occurred. Popliteal artery aneurysms also are readily detected this way. Arthrography with the contrast placed in the anterior knee joint, can show both a dissecting or leaking cyst (*Figure*). Care must be taken to make sure that the patient moves the knee joint to "pump" the contrast into the posterior cyst. A film should be taken at one hour after injection to look for any indication of leakage or cyst. Venography should be reserved for those patients in whom a clear-cut diagnosis is not made or in those patients with proven cysts who do not respond to therapy as described below.

Therapy

In general, placing the patient at rest and with slight elevation of the affected limb will quickly help bring symptoms under control. Likewise, once infection has been ruled out, an intra-articular injection of corticosteroid, possibly at the time of a contrast study, will be beneficial in many patients. In general, other measures to reduce associated rheumatoid synovitis or other inflammatory activity will be helpful. Patients may respond to oral nonsteroidal anti-inflammatory drugs along with bed rest. Therapy is often effective within the first 24 to 48 hours.

Anticoagulant therapy should be reserved for those patients who show clear-cut evidence of thrombophlebitis. While associated thrombophlebitis with popliteal cyst rupture has been reported, this is an unusual clinical situation. In those patients with irritative synovial fluid in the calf, anticoagulation seems to be somewhat more dangerous, with a higher incidence of hematoma and bleeding problems.

In general, recurrences of popliteal cyst rupture or dissection can be controlled by treating the associated anterior knee joint disease. Likewise, when more aggressive therapy including surgery is directed toward a popliteal cyst, it should be understood that the anterior knee joint is a primary factor. Therefore, therapy should be directed toward correcting the underlying knee problem to affect the best possible results. Quadriceps exercises in the presence of a large cyst may raise cyst pressure and should be avoided.

Summary

Popliteal cysts are a common clinical finding. Their symptoms may mimic a number of conditions that cause pain and swelling in the calf, the most important of these being deep vein thrombophlebitis. Physical findings alone may not be sufficient to differentiate between deep vein thrombophlebitis and the pseudothrombophlebitis of a popliteal cyst rupture or dissection. Ultrasonography and arthrography are sometimes needed. Therapy consists of controlling inflammation in the anterior knee joint and the popliteal cyst and the avoidance of unnecessary anticoagulantion.

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Dioxin Effects on Human Health

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Abstract

The most consistent effect of true dioxin toxicity is a rare skin condition known as chloracne. If a person is exposed to minute traces, no symptoms at all may appear and even with significant exposure to dioxin, chloracne may be the only objective sign. Only in cases of very high exposure do the more severe effects such as liver and nerve damage occur.

This report is based on all known and previously published accounts of dioxin exposure and indicates that dioxin, in small quantities, is not as uncommon as may be believed.

Dioxin has even been found in the mufflers of trucks and cars from combustion in diesel engines. Millions of people in industrial regions of the world are exposed to minute traces of dioxin in ordinary house dust.

The recent amount and tone of news coverage on dioxin may have a significant power of suggestion and cause many patients to attribute psychosomatic complaints to dioxin. Many patients who claim exposure to dioxin have been exposed to such low quantities, and even lower absorbed doses, that they do not have any real toxicity. It is important to separate those people who have only psychosomatic complaints from those who have true toxicity.

Thousands of people exposed to dioxin have been observed for several years; only chloracne occurs in most cases of true toxicity. . .

DIOXIN, and its possible effects on health, have received an enormous amount of exposure in the popular media. Concerns were initially raised by the controversial use of the herbicide, Agent Orange, in Vietnam. The alleged harmful effects of this spray were attributed to contamination of the herbicide with small quantities of dioxin. The issue was heightened by controversies over toxic waste disposal and accidental spills, which have resulted in many lawsuits. Michael Brown, probably the best known popular writer about toxic wastes and the reporter who "exposed" the Love Canal story, has said that Missouri is the "Dioxin capital of the world."[1]

In conversations with local physicians and in second hand reports from patients of comments by their doctors, the view is often expressed that nothing much is known about dioxin. *Actually, there is a great deal of information about the effect of dioxin on health in both animals and humans. The problem is that these studies are scattered in a wide variety of publications, usually toxicology or occupational medicine journals that have a small circulation.*

Only a few attempts have been made to consolidate and summarize the information.[2-4] This article is a brief review of some of the highlights of what is currently known so that physicians can respond to inquiries from their patients.

Exposure

Dioxin has been called the most toxic chemical known to man.[5] This statement refers to a specific chlorinated derivative, 2,3,7,8-tetrachlorodibenzodioxin, usually abbreviated as TCDD. In a strict chemical sense, the plain dioxin molecule without chlorine is relatively harmless. The addition of chlorine makes a more toxic molecule, with four chlorines being the worst, TCDD (*Fig. 1*). In the remainder of the paper, I will use the terms dioxin and TCDD interchangeably because this is the standard practice in the news media.

On a weight-for-weight basis, TCDD is one of the most toxic synthetic chemicals in terms of LD_{50} for some species of laboratory animals.[6] This fact is the basis for the claim that dioxin is

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one of the most toxic chemicals known. On a practical level, however, it is very unlikely for anyone to come in contact with large amounts of dioxin. It is ordinarily found in quantities described as parts per million or parts per billion. There is no industrial use for dioxin. Outside of a few research laboratories, no one intends to directly synthesize the harmful chlorinated isomers of dioxin.

The problem is that dioxin is often an unwanted by-product in small quantities of the manufacture of chlorinated phenols[7]—a group of chemicals that do have a wide variety of important uses. Small quantities of dioxin (and the equally toxic dibenzofurans) are present in the fly ash of municipal and industrial incinerators.[8] Dioxin has even been found in the mufflers of trucks and cars from combustion in diesel engines. Millions of people in industrial regions of the world are exposed to minute traces of dioxin in ordinary house dust.[8] Very small quantities of dioxin have been found in beef fat from cattle that grazed on range-land sprayed with herbicides contaminated with low levels of dioxin.[9] Most likely, such low exposures are harmless.

The best information about human exposure to dioxin has been obtained by studying the results of several industrial accidents in which workers are exposed to chemicals. The best example in the United States was a plant in Nitro, West Virginia that produced trichlorophenol. On March 8, 1949, a violent reaction caused a relief valve to open, releasing fumes and residue from an autoclave into the interior of the building. Two hundred and eighty-eight employees and clean up workers were exposed to the material which included 2,3,7,8-tetrachlorodibenzodioxin (TCDD).[10] Similar accidents involving plants that produce trichlorophenol have occurred at Ludwigshafen, West Germany in 1953;[11] Amsterdam, Netherlands in 1963; Grenoble, France in 1966; Czechoslovakia from 1965 to 1969;[2, 12] and Bolsover, United Kingdom on April 23, 1968.[13] Health effects from all these accidents have been reported in foreign medical journals. On July 10, 1976, an explosion in a trichlorophenol

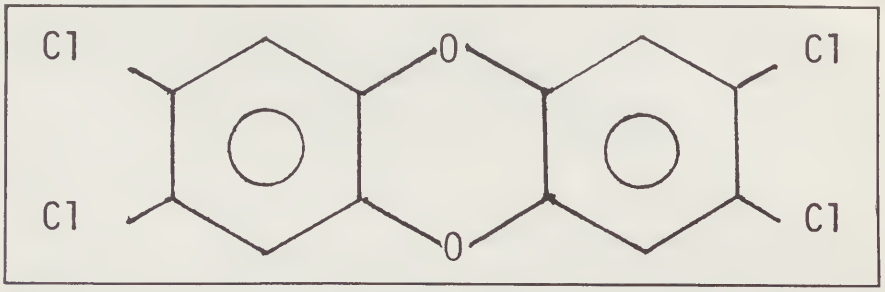


FIGURE 1: Chemical structure of 2,3,7,8-tetrachlorodibenzodioxin (TCDD). The term dioxin is commonly used for this substance.

plant at Seveso, Italy, 20 miles north of Milan, resulted in the spread of products including TCDD over an area of 700 acres and exposing about 28,000 people. Seven hundred thirty-three people were in the most heavily contaminated area. A large epidemiologic screening program was established by the Lombardy regional government, and the results of the acute effects of exposure have been published.[2, 3, 14, 15]

In 1970 and 1971, a company in Verona, Mo. used trichlorophenol in the manufacture of hexachlorophene. In 1972, the company went out of business after the FDA restricted the use of hexachlorophene to prescription only. Through a round-about sequence of events, oily wastes contaminated with high levels of TCDD, which had been stored at the site, ended up being sprayed on several horse arenas throughout Missouri for the purpose of dust control. The effects on animals and humans at one horse arena were published in 1975.[16] Soil from this site has shown the highest level of TCDD of all the environmental contamination areas tested to date, about 30 parts per million.[17] The full extent of the unauthorized disposal of dioxin in Missouri is unknown.

The average soldier in Vietnam was probably exposed to extremely low concentrations of TCDD, if any, compared to the preceding categories. A total of 11 million gallons of Agent Orange was sprayed on 3½ million acres in South Vietnam between 1965 and 1971. The average concentration of TCDD in the spray was 2 parts per million. The estimated seven-year total amount of TCDD for all of South Vietnam was 170 pounds,[18] compared to the estimate of 20 pounds for one horse arena in Moscow Mills, Mo.[3] Spraying missions almost always occurred when allied troops were not present; in fact, fighter aircraft usually strafed the ground preceding the spraying aircraft.

Most veterans claim exposure by walking through vegetation. TCDD is degraded by ultra-violet light, and studies show that it cannot be detected on vegetation after one day of sunlight.[19] Dioxin, in low concentrations, can also be degraded by soil bacteria.[20] The actual dose that would penetrate through human skin by brushing against vegetation is conjectural.

The personnel actually involved in the spraying program, Operation Ranch Hand, would likely be exposed to much higher levels than other soldiers. The armed services are conducting an epidemiologic study of personnel involved with Operation Ranch Hand. The preliminary results should be available soon. If no adverse effects are noted in this group who worked with the chemical daily, then it would be very unlikely for the average soldier who had much less exposure to have any effects.

Health Effects in Humans

Thousands of people with known definite exposure to dioxin have been observed; some have been followed for 30 years after industrial accidents at Nitro, West Virginia and Ludwigshafen, West Germany. The only disease which unequivocally follows exposure is a rare skin condition known as chloracne. Many

other reported conditions must be examined in detail from one report to another. Using the accident at Nitro as an example, one can separate immediate, delayed and long-term effects.

Immediate Effects

Immediate symptoms at Nitro were irritation of the skin, eyes and respiratory tract and headache, dizziness and nausea.[10] These symptoms were probably due to other chemicals, such as chlorinated phenols, present in the reaction mixture in much higher concentrations. The accident at Bolsover, England, resulted in different symptoms. In this case, workers were not exposed to vapors from the explosion. The explosion occurred at night and the plant was closed for ten days. When work was resumed, no immediate effects were noted. The first abnormality detected was chloracne, mostly in fitters, plumbers and electricians. Subsequently, it was shown that TCDD was present in greasy deposits on the walls, roof and other surfaces of the plant. The 79 workers who developed chloracne were the ones most likely to come into direct contact with such surfaces.[13, 21] Some other cases in which there were no immediate effects of dioxin exposure include two laboratory scientists in Britain[22] and large numbers of people at Seveso, Italy. Apparently, exposure to low or moderate amounts of dioxin does not produce immediate symptoms.

Delayed Effects

Chloracne usually begins four to eight weeks after exposure. This is the most consistent finding and has been reported in all the studies of known dioxin exposure. The Italian medical commission, which thoroughly studied a large number of people at Seveso, concluded that chloracne was the most frequent and reliable indicator of TCDD exposure, and its incidence was proportional to the level of exposure.[3] Chloracne is a persistent condition that may last for a year or two after exposure. Some cases last longer, and one has been noted 15 years after an industrial accident.[13] Chloracne consists primarily of open comedones with a low proportion of inflammatory lesions versus acne vulgaris. In addition, chloracne occurs in many skin locations such as the pinna where acne vulgaris is unusual.[23]

Chloracne appeared in 122 of 288 workers at Nitro after a delay of a few weeks. Other delayed symptoms were muscle pains, fatigue, nervousness, decrease in libido, dyspnea, vertigo and cold intolerance.[10] Some of these symptoms may have been due to phenols and other chemicals in the reaction mixture. Some symptoms are common everyday complaints, are difficult to quantify and are not consistently present in other studies. Very few objective findings were reported. At Bolsover, England, even though many of the chloracne cases were severe and persisted up to four years, no other ailments that could reasonably be attributed to dioxin were found.[13] In particular, monitoring of results of liver function tests and urinalyses were normal.

After the accident at Ludwigshafen, 66 of 74 workers developed chloracne. Twenty-one of the most severely affected had other complaints related to polyneuritis, sensory impairment or liver damage. Again, there were many other chemicals beside TCDD in the reaction mixture. Signs of porphyria cutanea tarda were noted in several workers.[11] PCT was also noted after industrial exposure in Czeckoslovakia[2] and an unspecified plant in the USA.[24, 25] Most of the signs of PCT are cutaneous: fragility of the skin, blisters, hirsutism and hyperpigmentation. Hirsutism and hyperpigmentation were also noted in two laboratory scientists doing research on TCDD in Great Britain.[22] Although no porphyrins were detected in the urine, the descriptions are compatible with PCT and, perhaps, the diagnostic tests were not as accurate as current ones.

After the accident in Seveso, Italy, no clinically evident PCT was found, but subtle changes in urinary porphyrin ratios were detected in some patients.[26] TCDD is a potent inducer of the enzyme delta-aminolevulinic acid synthetase, which is the first step in the formation of porphyrins.[27] So, there is a good theoretical explanation for the occurrence of PCT after dioxin exposure.

Symptoms of neurasthenia (lack of vigor, sleep disorder, etc.) have been reported in several studies. Although these symptoms are subjective and difficult to quantify, they do seem to be significant in persons likely to have large exposure to the chemical as shown by chloracne. There have been some reports of objective neurologic signs such as weakness of the lower extremities and nerve conduction deficits of the demyelinization type. However, at Seveso, most people who had these changes were over 55 years old and had other possible predisposing conditions, such as diabetes or nutritional impairment.[3] Two people who operated one of the horse arenas in Missouri developed symptoms of headache and nausea four days after the arena was sprayed with waste oils containing dioxin. Later, they developed chloracne. Two children who played in the area had headaches, diarrhea, epistaxis and chloracne. One developed an acute hemorrhagic cystitis, which required hospitalization but resolved in three days.[3, 16, 17, 28]

An extensive epidemiologic study was conducted after the release of dioxin at Seveso, Italy. One hundred eighty-seven cases of chloracne were discovered, mostly in the zone with the highest levels of dioxin. There was some question about neurologic findings discussed above, but few other significant problems were found. The Seveso Medical Commission looked extensively but found no evidence for hepatotoxicity, congenital malformations, spontaneous abortions, chromosome aberrations, immunosuppression, susceptibility to infection or overall death rate.[3, 14, 15]

Other delayed effects that have been reported occasionally after dioxin exposure include muscular pain, hypercholesterolemia, hepatic enzyme elevation, conjunctival irritation, prolonged prothrombin time and blurred vision. These effects are not reported frequently and may be due to incidental disease, dioxin or other chemicals and irritants in the industrial setting.

The subjective and objective findings that have been reported consistently in patients with known dioxin exposure are listed in *Table 1*. There are very few cases of high level exposure. The problems listed for the high category should not be taken as firm or exhaustive. Some are based on only one or two cases in humans and analogies to animal toxicity.

TABLE 1
Dioxin Toxicity

Amount of Exposure	*Subjective Symptoms*	*Objective Signs*
Low	Headache Fatigue	Chloracne
Moderate	The above plus Neurasthenia —depression —lack of vigor —sleep disorder —loss of libido —profound weakness Nausea Muscle pains Lack of concentration Anorexia	The above plus Porphyria cutanea tarda —blisters —fragility of skin —hyperpigmentation —hirsutism Sensory peripheral nerve impairments Nerve conduction abnormalities
High	The above plus Abdominal pain	The above plus Hepatic necrosis T cell depression Bleeding tendency Diarrhea Prolonged prothrombin time

Long-Term Effects

Another major concern about dioxin is the possibility of inducing cancer. The evidence from animal studies is conflicting. The Ames test is positive in some strains of bacteria but not in others.[4] Cultured mammalian cells have not shown mutagenic responses.[4] Some strains of laboratory animals develop cancers after continuous dioxin feeding, but the dosage level required is so high that multiple organ toxicities are produced.[2] The thymus is particularly susceptible, and the problem may be decreased immune surveillance. No particular type of malignancy has been found consistently.

In long-term follow-up of human exposure, no increase has been noted in overall mortality. Thirty-year follow-up of 122 workers at Nitro, W. V. showed no excess over the expected rate of malignancy.[10] Follow-up of 74 workers exposed to dioxin at Ludwigshafen, West Germany showed three deaths due to stomach cancer, with less than one expected statistically.[11] No other disease or type of malignancy was increased compared to control populations. No increase in stomach cancer has been found in any other study.

The other question about human cancer concerns soft-tissue sarcomas. This question was initially raised by a study of Swedish forestry workers exposed to phenoxy herbicides. An increase in soft tissue sarcomas was noted in workers using herbicides contaminated with dioxin. However, a similar increase was also noted in workers using herbicides that were not contaminated with dioxin.[29] Furthermore, studies of Swedish agricultural and railroad workers and studies of forestry workers in Finland and New Zealand who used the same herbicides did not show any increase in malignancy. One patient who developed chloracne after the accident at Nitro died 29 years later of malignant fibrous histiocytoma.[10] Two people who worked at other plants producing phenoxy herbicides have died of fibrosarcoma and liposarcoma. Some people have suggested that these three soft-tissue sarcomas are more than expected by chance.[29] However, no soft-tissue sarcomas have been detected after any of the industrial accidents in Europe.

Suggested Evaluation for Dioxin Exposure

Many patients who claim exposure to dioxin have been exposed to such low quantities, and even lower absorbed doses, that they do not have any real toxicity. It is important to separate those people who have only psychosomatic complaints from those who have true toxicity. Every patient should have a dermatological evaluation for chloracne and porphyria cutanea tarda. Serum chemistry profiles and prothrombin time should rule out hepatocellular damage. A 24-hour urine collection for uroporphyrins should be done. A spot check of urine for uroporphyrins is not reliable. Muscle weakness or neuritis symptoms should be evaluated by electromyography and motor conduction velocity. Immunologic evaluation may be considered in someone with other organic disease and high exposure.

Summary

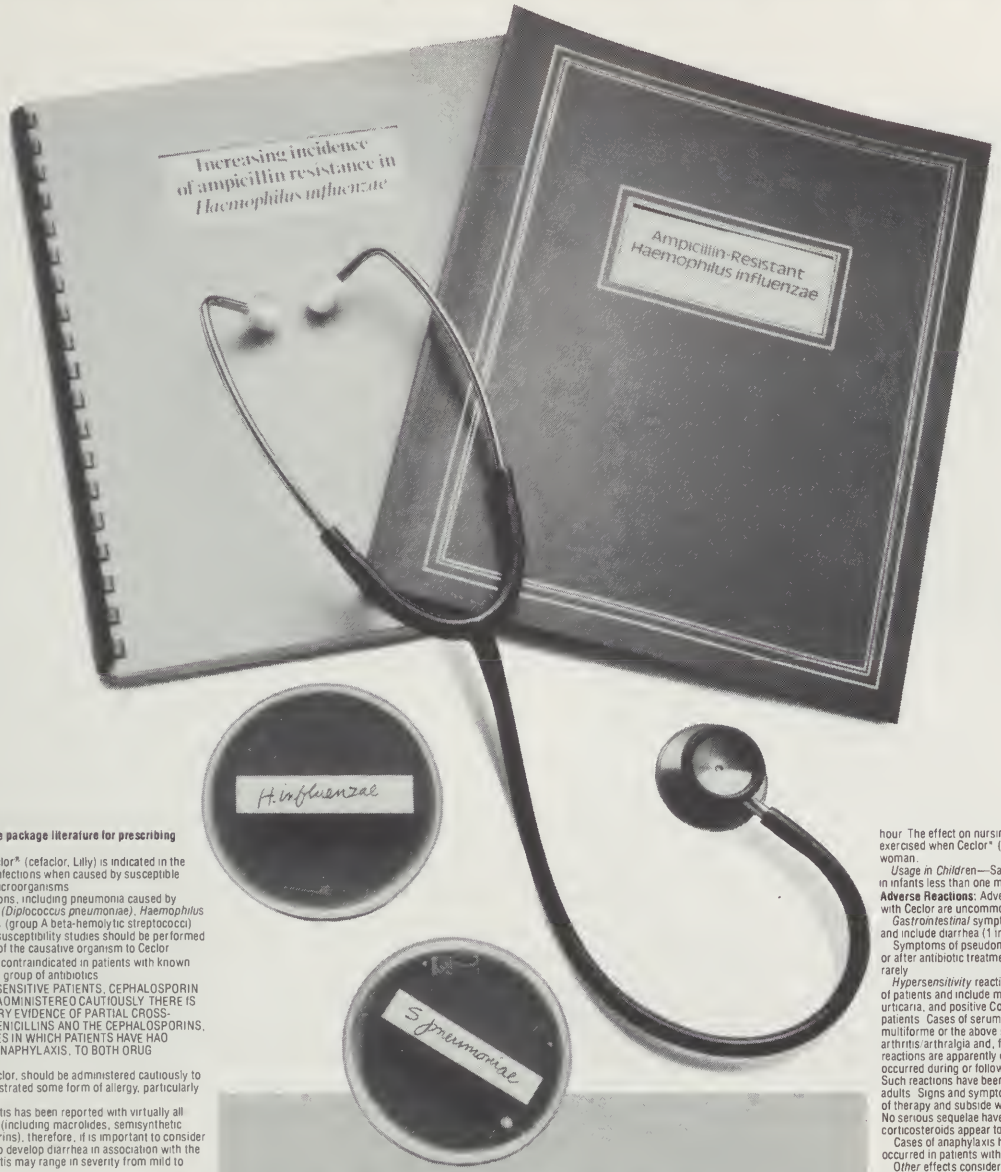
A large number of people with definite exposure to dioxin have been reported in the medical literature. The consistent effects which can reasonably be attributed to dioxin are listed in the table. Chloracne is the most significant of the objective signs, occurring in most cases of true toxicity. Chloracne is a distinctive entity

which may occur from topical or systemic absorption, and differs from acne vulgaris and from acneiform eruptions secondary to topical tar or oil.[23] It may occur in pre-pubertal children and the elderly. The amount and tone of news coverage of dioxin may have a significant power of suggestion, and many patients attribute psychosomatic complaints to dioxin. However, a patient with no objective signs of dioxin toxicity should not be considered as having true adverse effects of dioxin.

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An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Brief Summary Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins), therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics Such colitis may range in severity from mild to life-threatening

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out

Precautions: *General Precautions*—If an allergic reaction to Ceclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g , pressor amines, antihistamines, or corticosteroids

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis

Usage in Pregnancy—Pregnancy Category B—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor There are, however, no adequate and well-controlled studies in pregnant women Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed

Nursing Mothers—Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses Average levels were 0 18, 0 20, 0 21, and 0 16 mcg/ml at two, three, four, and five hours respectively Trace amounts were detected at one hour The effect on nursing infants is not known. Caution should be exercised when Ceclor* (cefaclor, Lilly) is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment Nausea and vomiting have been reported rarely

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy No serious sequelae have been reported Antihistamines and corticosteroids appear to enhance resolution of the syndrome

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations of SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

* Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.*

Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information.

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Thrombolytic Therapy in Acute Myocardial Infarction.

Methodist Hospital Experience

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The authors report on their experiences with 50 patients treated with intracoronary streptokinase. . .

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RESEARCH IN THE treatment of acute myocardial infarction in recent years has centered around modalities that limit myocardial infarct size. Recent work by Dewood, *et al* has revealed that 87-90% of patients undergoing acute myocardial infarction have a thrombotic occlusion of a coronary artery.[1] Furthermore, Rentrop, *et al* demonstrated that this thrombotic occlusion could be lysed using streptokinase, thus restoring antegrade flow.[2] Work by others has shown a high success rate of thrombolysis in acute myocardial infarction. However, further studies are needed to show whether restoration of blood flow actually reduces myocardial damage.

A research protocol for studying the efficacy of intracoronary thrombolysis on preserving left ventricular function was begun in October 1981.

In this report, we present our initial experience with 50 patients with acute myocardial infarction treated with intracoronary streptokinase at Methodist Hospital.

Methods

Patient selection: Patients were accepted for entry into the study if they met the following criteria: presentation within six hours of the onset of pain; chest pain unrelieved with nitroglycerin; segmental ST segment elevation on 12 lead EKG; no contra-indications to anticoagulants; and informed consent for a research procedure.

Control patients consist of those patients who refuse the procedure or meet exclusion criteria. Other control patients were those who underwent the procedure but had unsuccessful thrombolysis.

Catheterization procedure: In the emergency room, standard therapy for patients with acute myocardial infarction at our institution is initiated including narcotic analgesics, nasal oxygen, and continuous monitoring. A 12 lead EKG is obtained and then repeated following the administration of sublingual nitroglycerin. If ST segment changes are not altered with nitroglycerin, all patients receive an intravenous bolus and infusion of lidocaine and 5,000 units heparin intravenously prior to the catheterization procedure.

Cardiac catheterization and coronary angiography are performed using standard Judkins or Sones' technique. The vessel felt not responsible for the acute infarction on the basis of the EKG is studied first, followed by the infarct-related vessel. If total obstruction of a coronary artery is demonstrated, 400 ug of nitroglycerin is given directly into the artery through the catheter and the angiogram is repeated to rule out coronary artery spasm. If the obstruction persists, 20,000 units of streptokinase (Kabi Kinase®) is given as a bolus injection directly into the coronary artery followed by a continuous infusion at 4,000 units/minute. Repeat angiograms are obtained every 15 minutes. If there is no angiographic evidence of reperfusion after 30 minutes, cannulation of the coronary artery may be attempted. If reperfusion occurs, the infusion is continued for 30 minutes. If no reperfusion has occurred after 60 minutes, the infusion is discontinued.

Following completion of the streptokinase infusion, left ventriculography is performed. Right heart catheterization



FIGURE 1: Before streptokinase thrombolytic therapy in acute myocardial infarction.



FIGURE 2: After streptokinase thrombolytic therapy in acute myocardial infarction.

for hemodynamic monitoring or pacemaker placement is performed if warranted. An arterial sheath is left in place to prevent bleeding complications. Patients who have successful lysis are continued on intravenous heparin, aspirin and dipyridamole.

Thallium perfusion techniques: Thallium 201 scintigraphy is performed before and after the lysis procedure and again prior to discharge. The patient is given 1.5-2.0 m Ci of Thallium-201 upon arrival at the emergency room and the first scan is done at time of catheterization in two projections using a portable Toshiba camera. Following the procedure, scintigraphy is repeated after intracoronary administration of 70-100 m Ci of Thallium into each coronary artery.

Prior to discharge, the patient is given intravenous Thallium, and planar and tomographic images are obtained in the resting state.

Radionuclide ejection fraction: First pass radionuclide angiocardiography for ejection fraction and wall motion is obtained in the first 24 hours, then repeated prior to discharge.

Clinical follow-up: Following the streptokinase procedure, patients are taken to the CCU for further care. They are followed closely for recurrent chest pain, recurrent ST segment elevation or complications. EKG changes and CPK values are recorded. Any additional procedures such as repeat catheterization, angioplasty or CABG surgery are noted.

Results

This case report is representative of our patient group:

R.O. is a 56-year-old white man with no previous history of heart disease until about one week prior to admission when he developed exertional chest pain. This chest pain increased in frequency and at 12:30 a.m. on the day of admission it became sustained and severe. He was brought to Methodist Hospital ER by ambulance at 2:10 a.m. where an EKG revealed ST segment elevation in leads II, III, AVF, V_5, V_6 and St depression in V_1, V_2, V_3. Sublingual nitroglycerin

resulted in no change in the ST segment changes. His physical exam revealed an anxious man with complaints of severe chest pain. Vital signs BP 170/100, HR 88, RR 12. His chest was clear and no gallops were noted. Routine care for acute myocardial infarction at our hospital was begun. The streptokinase procedure was explained to the patient and he consented. Heparin, 5,000 units IV and Xylocaine infusion were begun prior to going to the catheterization lab.

At catheterization, the patient was approached through the right femoral artery using the seldinger technique. Right coronary angiograms revealed a total thrombotic occlusion near the origin (*Figure 1*). Streptokinase 20,000 units was given as a bolus intracoronary at 4:09 a.m. and an infusion of streptokinase at 4,000 units/minute was begun. After 30 minutes of infusion, the patient's pain suddenly resolved and was associated with increase in PVCs. Repeat right coronary artery angiograms revealed recanalization of the vessel with a 50% stenosis at its mid portion (*Figure 2*). Streptokinase was continued for an additional 30 minutes—total dose of streptokinase, 260,000 units.

Following successful lysis of the right coronary artery, left coronary angiograms were performed and finally left ventriculography. The procedure was then terminated and the patient was transferred to the CCU.

The patient had an uneventful hospital course. He was treated with heparin intravenously as well as aspirin and dipyridamole. His nuclear studies revealed an ejection fraction of 33% immediately post streptokinase and 42% predischarge.

Three months later, the patient was rehospitalized and repeat catheterization showed the right coronary artery still patent with a 50% narrowing. The left ventricle, which previously had akinetic inferior segments, demonstrated remarkable improvement in motion on left ventriculography.

The patient has continued to do well to this day.

Fifty patients have entered the study, 38 of them men and 12 women. Their mean age was 56 ± 8 years. Their clinical characteristics are noted in the *table*. Twenty-eight patients (76%) had inferior and 12 (21%) had anterior myocardial infarctions.

TABLE
Clinical Characteristics of Study Patients

Age	55.9 ± 7.8 years
Sex	38 male 12 female
Previous Infarction	3 (6%)
Cigarette Smokers	31 (63%)
Hypertension	25 (53%)
Diabetes	7 (14%)
Elevated Cholesterol	10 (27%)
Family History of CAD	38 (76%)
Inferior MIs	38 (76%)
Anterior MIs	12 (24%)

Occlusive thrombosis was present in 46 (92%), with the remaining four showing subtotal occlusion. Thirty patients (65%) had successful thrombolysis with streptokinase, 16 patients (35%) had unsuccessful lysis. Three patients sustained early reocclusion of the involved coronary artery before the procedure concluded. After lysis, all patients were left with significant atherosclerotic stenosis (> 70% narrowing) of their involved coronary artery. The mean time from onset of chest pain to bolus of streptokinase was 4:18 hours.

Initial ejection fractions were compared to the ejection fractions obtained prior to discharge. In the successfully lysed patients, the mean initial EF was 37.3 ± 1.3 and the late EF was 47.8 ± 2.2. Patients who were not lysed had early EFs of 36.0 ± 2.7 and late EFs of 39.5 ± 2.9. Thus, lysis patients had an increase in EF of 10.5 (28%) while non-lysed patients had an increase in EF of only 3.5 (9.8%). This difference is statistically significant ($p < 0.04$).

During hospitalization, 11 patients underwent CABG surgery because of multivessel coronary artery disease within 10 days of streptokinase and all did well.

Complications

No patients died during the procedure. Reperfusion arrhythmias were fairly common, usually consisting of occasional PVCs. However, seven patients had spontaneous ventricular fibrillation, all successfully cardioverted.

Eight patients (33%) developed profound bradycardia, usually at the time of lysis. Most of these were patients with recanalized right coronary arteries. The bradycardia resolved in all eight.

No bleeding complications have occurred during the procedure but five patients, all in the successful lysis group, have bled following the streptokinase procedure while receiving heparin. All were treated with discontinuation of anticoagulation and three required a transfusion. One patient required surgical evacuation of a groin hematoma with oversewing of the femoral artery site of initial puncture.

One allergic reaction to streptokinase occurred consisting of severe hives which were self-limiting.

Three patients died during their hospital course, giving an overall mortality of 6%.

One clinical reocclusion of an involved coronary artery occurred while the patient was hypotensive from cardiogenic shock.

Discussion

The use of streptokinase for treatment of acute myocardial infarction first occurred in the 1950s by Boucek.[5] However, because of allergic reactions, studies were discontinued. With the development of a newer, less allergenic form, streptokinase was again evaluated for use in myocardial infarction, first intravenously in Europe, then recently by Rentrop, *et al*[2] in 1979 who infused it directly via a cardiac catheter at the site of a coronary arterial clot. Subsequent studies have demonstrated a rate of thrombolysis ranging from 65 to 90%.

Following successful lysis of the thrombus, an atherosclerotic plaque remains since it is not affected by thrombolytic therapy. This plaque may initiate recurrent thrombosis resulting in reocclusion of the affected artery. Leinbach, *et al* reported a 33% reocclusion rate later following the procedure.[10] Therefore, thrombolytic therapy is not definitive

treatment. Whether all patients should undergo a more definitive procedure such as angioplasty or CABG surgery awaits further study.

The question still to be answered is whether lysis of intracoronary thrombi with subsequent recanalization actually salvages myocardium. It has been demonstrated that pain can be relieved, ST segments return to normal on EKG and Thallium defects decrease in size following lysis.[6] Reduto, *et al*, using early and late nuclear ejection fractions, showed significant improvement in ejection fraction following lysis ($44 \pm 15 \rightarrow 55 \pm 7$) vs. no improvement in non-lysis patients.[7] Rentrop, *et al* likewise showed improved angiographic EFs and wall motion in successfully lysed patients (late EF $57.4 \pm 12.7\%$) when compared to a retrospective control group of patients treated with conventional therapy (late EFs $43 \pm 7\%$).[8] At present, it appears that changes in left ventricular function are highly influenced by the presence of collaterals and the duration of symptoms. If collaterals are absent, early reperfusion may be the only way to preserve function.[9]

Our experience at Methodist has been fairly commensurate with the literature. Of 50 patients studied, 46 (92%) had thrombotic occlusions. Thirty (65%) were successfully lysed with streptokinase, all revealing significant underlying atherosclerotic stenoses. Patients having successful lysis demonstrated significant improvement in nuclear ejection fractions. The procedure was performed with minimal morbidity and no mortality. Three patients died during their hospital course for an overall mortality of 6%. Although this 6% is less than the 15% in hospital mortality for myocardial infarction quoted in the literature, further study is necessary to see if streptokinase will have an effect on overall mortality.

Even though 50 patients have been done to date, we still consider this a pilot study. A computer bank for data collection, storage, and retrieval has been devised to facilitate evaluation of a larger and ongoing patient group.

At present, streptokinase has been approved by the FDA for coronary artery thrombosis associated with acute myocardial infarction. Further studies, however, are needed to demonstrate how effective this therapy is in salvaging jeopardized myocardium and decreasing myocardial infarction mortality.

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Severe Spontaneous 'Bovine' Ketoacidosis in a Lactating Woman

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Abstract

A 14-week postpartum lactating woman spontaneously developed severe "bovine" ketoacidosis. This condition was precipitated by the stress of lactation combined with a carbohydrate-free reducing diet. Her condition quickly improved with appropriate therapy. The course and pathophysiology are discussed.

Although this case report is unusual, the authors feel it is important because of the current dieting fad. . .

BOVINE KETOSIS is an entity described by Stinson[1] commonly seen in postpartum dairy cattle. It is characterized by ketosis, decreased hepatic glycogen and ketonuria.[2] Recently, a patient was described who had an episode of "bovine" ketosis precipitated by a urinary tract infection concomitant with a fasting state.[3] She suffered from moderate ketoacidosis that was rapidly reversed. We describe a case of severe "bovine" ketoacidosis that occurred spontaneously in a lactating woman who was on a reducing diet.

Case Report

A 30-year-old woman was admitted to Tampa General Hospital because of vomiting, nausea, rapid breathing and dehydration. She was 14 weeks postpartum and was nursing her child. Her infant at birth weighed 9 lbs. 13 oz. For a week prior to admission she had been on a high protein, carbohydrate-free reduction diet, which had resulted in the loss of approximately 10 lbs.

On the day of admission she was seen in the University of South Florida Medical Clinics with complaints of headaches, nausea and vomiting. At that time she was well hydrated clinically. Her vital signs were normal. Laboratory data revealed a white blood cell count of 7,400 per cubic millimeter, plasma glucose of 75 mg/dL, urinalysis positive for ketones and an SMA-12/60 that was normal except for a creatinine of 1.7 mg/dL and uric acid of 10.1 mg/dL.

Her past medical history included a somewhat vague description that was suggestive of a mildly abnormal glucose tolerance test. She admitted to taking two aspirin tablets a day but denied the use of any other medications, alcoholic beverages or toxic substances. On admission she was a well nourished, well developed, ill appearing, white female with Kussmaul respirations. Her pulse was 120 beats per minute, respiratory rate was 40 per minute, blood pressure was 110/70 mmHg and she was afebrile. The physical examination was completely normal except for dehydration with loss of skin turgor and dry mucous membranes.

On admission her sodium was 144 mEq/L, potassium 6.2 mEq/L, chloride 107 mEq/L and bicarbonate less than 5 mEq/L. Her glucose was 125 mg/dL, BUN was 15 mg/dL and creatinine was 2.0 mg/dL. A lactate level was 0.9 m Moles/L, phosphate 1.24 mg/dL and magnesium 1.4 mg/dL. Arterial blood gases on room air showed a PO_2 of 119 mmHg, PCO_2 of 8 mmHg, pH 7.07, oxygen saturation of 98.1%. Her white count was 7000/mm^3 with a normal differential; Hgb 10.5 Gm/dL, hematocrit 31.9% and a normal platelet count. Urinalysis had a pH of 5 with 3+ ketones. A comprehensive drug screen was positive for salicylates, 8 mg/dL and acetone 71 mg/dL. Chest and abdominal radiographs were within normal limits.

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She was rehydrated intravenously with alternating liters of normal saline and half normal saline. Intravenous dextrose, bicarbonate, potassium and phosphate were administered and cultures of blood, urine and uterine cervix were obtained. A constant infusion of insulin was started and she received a total of 15 units over a seven-hour period. Twelve hours later her PO_2 was 86 mmHg, PCO_2 was 28 mmHg and pH 7.43. Twenty-four hours later her bicarbonate had corrected to 20 mEq/L. She was symptomatically better, her cultures were negative and she was discharged.

Discussion

Metabolic acidosis with an increased anion gap is seen with ketoacidosis, lactic acidosis, uremic acidosis, hyperosmolar hyperglycemic non-ketotic coma and ingestion of acid-producing toxins. Ketoacidosis in humans is almost always the result of diabetes or alcoholism.[4]

Hyperketonemia may be seen with fasting, decreased circulating insulin or an excess of stress hormones. During starvation there is a mobilization of free fatty acids from adipose tissue. The liver, because of depletion of glycogen with an excess of carnitine, converts the free fatty acids to acetoacetate and B-hydroxybutyric acid. Even without an absolute deficiency in insulin, increases in adrenal hormones can stimulate this pathway.

Starvation almost never leads to acidosis in humans because of the presence of circulating insulin. Ketones themselves are a potent stimuli to endogenous insulin release. Owen, *et al* fasted obese patients and measured their BOH butyric acid levels.[5] The values increased rapidly early on but seldom exceeded 6m Moles/L. These patients were obese, however, and may have had increased circulating levels of insulin and were not under any additional stress.

The metabolic changes that the body undergoes in both short-term starvation and in prolonged starvation are complex. The ketogenesis that acts as a protective mechanism continues and results in a progressive rise in blood ketones throughout this period. Changes in the levels of insulin, glucagon, growth hormone, cortisol and catecholamines have all been found during periods of starvation. The starvation ketosis of pregnancy in humans leads to the similar metabolic derangements.[6]

During lactation there is a depletion of maternal tissue reserves that are usually compensated for by an adequate dietary intake. It is also likely that insulin plays a relatively important role in the period of active lactation. It is true that lactation will generally persist even in the presence of prolonged, rather marked malnutrition. However, the concomitant metabolic demands on the body are even greater during this period and the protein and fat content of milk thus produced is lower than is normally found.[7] Even with an adequate total caloric intake, a diet completely lacking in carbohydrates causes glucose intolerance and decreased insulin release from the pancreas as was demonstrated many years ago in men who had a daily intake of between 2,600 and 3,000 calories for a prolonged period of time, yet with no carbohydrates.[8]

Bovine ketosis is seen in other animals, although it is most frequent in high producing dairy cows. It has been seen in ewes, guinea pigs and rats as well. The biochemical picture in this condition is virtually identical to that seen in our patient. The markedly increased metabolic needs of lactation play a major role in the causation of this condition.[9] Bovine ketosis usually develops from two to six weeks following parturition.

Our patient was under the stress of lactation, had depleted her glycogen stores by her carbohydrate-free diet and became severely acidotic. Both she and her husband adamantly denied that the patient used alcoholic beverages. Her comprehensive drug screen was positive for a minimal salicylate level which was consistent with her history, and the expected acetone.

A three-hour oral glucose tolerance test performed nine months later was normal. Her prompt response to glucose and insulin further speaks for starvation, coupled with the markedly increased metabolic demands of lactation, as the etiology of her "bovine" ketoacidosis.

Unlike the other reported case of "bovine" ketosis, our patient was severely acidotic and developed this condition spontaneously rather than secondary to infection.

There has been a recent resurgence of interest in breast feeding in the United States. Concomitant with this, the population is besieged with messages on television, radio and virtually every popular newspaper and magazine to undertake an almost unlimited assortment of dietary schemes. This combination of trends, coupled with the demands that are placed on the mother during the period of lactation should alert physicians to a likely increase in cases of spontaneous "bovine" ketosis in humans. Its recognition and prompt treatment are very important, but physicians should also stress to pregnant patients that they should not undertake weight reduction diets during either pregnancy or lactation.

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CONTRAINDICATIONS: ASPIRIN: Allergic or idiosyncratic reactions to aspirin or related compounds. MEPROBAMATE: Acute intermittent porphyria; allergic or idiosyncratic reactions to meprobamate or related compounds, e.g. carisoprodol, mebutamate, or carbromal.

WARNINGS: ASPIRIN: Use salicylates with extreme caution in patients with peptic ulcer, asthma, coagulation abnormalities, hypoprothrombinemia, vitamin K deficiency, or those on anticoagulants. In rare instances, aspirin in persons allergic to salicylates may result in life-threatening allergic episodes.

MEPROBAMATE: DRUG DEPENDENCE: Physical and psychological dependence, and abuse have occurred. Chronic intoxication from prolonged ingestion of, usually, greater than recommended doses is manifested by ataxia, slurred speech, and vertigo. Therefore, carefully supervise dose and amounts prescribed and avoid prolonged use, especially in alcoholics and others with known propensity for taking excessive quantities of drugs. Sudden withdrawal after prolonged and excessive use may precipitate recurrence of preexisting symptoms, e.g. anxiety, anorexia, or insomnia, or withdrawal reactions, e.g., vomiting, ataxia, tremors, muscle twitching, confusional states, hallucinosis, and, rarely, convulsive seizures. Such seizures are more likely in persons with CNS damage or preexistent or latent convulsive disorders. Onset of withdrawal symptoms occurs usually within 12 to 48 hours after discontinuation; symptoms usually cease within next 12-to-48-hour period. When excessive dosage has continued for weeks or months, reduce dosage gradually over 1 to 2 weeks rather than stop abruptly. Alternatively, a short-acting barbiturate may be substituted, then gradually withdrawn.

POTENTIALLY HAZARDOUS TASKS: Warn patients meprobamate may impair mental or physical abilities required for potentially hazardous tasks, e.g., driving or operating machinery.

ADDITIVE EFFECTS: Since CNS-suppressant effects of meprobamate and alcohol or meprobamate and other psychotropic drugs may be additive, exercise caution with patients taking more than one of these agents simultaneously.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during first trimester of pregnancy, has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of childbearing potential may be pregnant at time of institution of therapy should be considered. Advise patients if they become pregnant during therapy or intend to become pregnant to communicate with their physicians about desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical cord blood at or near maternal plasma levels and in breast milk at lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breastfeeding patients, consider the drug's higher concentrations in breast milk as compared to maternal plasma levels.

USAGE IN CHILDREN: Keep preparations with aspirin out of reach of children. Equagesic®-M is not recommended for patients 12 years of age and under.

PRECAUTIONS: ASPIRIN: Salicylates antagonize uricosuric activity of probenecid and sulfinpyrazone. Salicylates are reported to enhance hypoglycemic effect of sulfonylurea antidiabetics.

MEPROBAMATE: Use lowest effective dose, particularly in elderly and/or debilitated, to preclude over-sedation. Meprobamate is metabolized in the liver and excreted by the kidney; to avoid excess accumulation exercise caution in its use in patients with compromised liver or kidney function. Meprobamate occasionally may precipitate seizures in epileptic patients. It should be prescribed cautiously and in small quantities to patients with suicidal tendencies.

ADVERSE REACTIONS: ASPIRIN: May cause epigastric discomfort, nausea, and vomiting. Hypersensitivity reactions, including urticaria, angioneurotic edema, purpura, asthma, and anaphylaxis may rarely occur. Patients receiving large doses of salicylates may develop tinnitus.

MEPROBAMATE: CNS: Drowsiness, ataxia, dizziness, slurred speech, headache, vertigo, weakness, paresthesias, impairment of visual accommodation, euphoria, overstimulation, paradoxical excitement, fast EEG activity.

GI: Nausea, vomiting, diarrhea.

CARDIOVASCULAR: Palpitation, tachycardia, various forms of arrhythmia, transient ECG changes, syncope, hypotensive crisis.

ALLERGIC OR IDIOSYNCRATIC: Milder reactions are characterized by itchy, urticarial, or erythematous maculopapular rash, generalized or confined to the groin. Other reactions include leukopenia, acute nonthrombocytopenic purpura, petechiae, ecchymoses, eosinophilia, peripheral edema, adenopathy, fever, fixed drug eruption with cross-reaction to carisoprodol, and cross-sensitivity between meprobamate/mebutamate and meprobamate/carbromal. Rare, more severe hypersensitivity reactions include hyperpyrexia, chills, angioneurotic edema, bronchospasm, oliguria, and anuria. Also, anaphylaxis, exfoliative dermatitis, stomatitis, and proctitis. Stevens-Johnson syndrome and bullous dermatitis have occurred.

HEMATOLOGIC (SEE ALSO "ALLERGIC OR IDIOSYNCRATIC"): Agranulocytosis, aplastic anemia have been reported, although no causal relationship has been established, and thrombocytopenic purpura.

OTHER: Exacerbation of porphyric symptoms.

DOSAGE AND ADMINISTRATION: Usual dose is one or two tablets, 3 to 4 times daily as needed for relief of pain when tension or anxiety is present. Not recommended for patients 12 years of age and under.

OVERDOSAGE: Treatment is essentially symptomatic and supportive. Any drug remaining in the stomach should be removed. Induction of vomiting or gastric lavage may be indicated. Activated charcoal may reduce absorption of both aspirin and meprobamate. Aspirin overdosage produces usual symptoms and signs of salicylate intoxication. Observation and treatment should include management of hyperthermia, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions. Suicidal attempts with meprobamate have resulted in drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse. Some suicidal attempts have been fatal. The following data, reported in the literature and from other sources, are not expected to correlate with each case (considering factors such as individual susceptibility and length of time from ingestion to treatment), but represent usual ranges reported. Acute simple overdose (meprobamate alone): Death has been reported with ingestion of as little as 12 gram meprobamate and survival with as much as 40 gram.

BLOOD LEVELS:

0.5-2.0 mg percent represents usual blood-level range after therapeutic doses. The level may occasionally be as high as 3.0 mg percent.

3-10 mg percent usually corresponds to findings of mild-to-moderate symptoms of overdosage, such as stupor or light coma.

10-20 mg percent usually corresponds to deeper coma, requiring more intensive treatment. Some fatalities occur.

At levels greater than 20 mg percent, more fatalities than survivals can be expected.

Acute combined overdose (meprobamate with other psychotropic drugs or alcohol): Since effects can be additive, history of ingestion of a low dose of meprobamate plus any of these compounds (or of a relatively low blood or tissue level) cannot be used as a prognostic indicator.

In cases of excessive doses, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Any drug remaining in stomach should be removed and symptomatic treatment given. Should respiration or blood pressure become compromised, respiratory assistance, CNS stimulants, and pressor agents should be administered cautiously as indicated. Diuresis, osmotic (mannitol) diuresis, peritoneal dialysis, and hemodialysis have been used successfully in removing both aspirin and meprobamate. Alkalinization of the urine increases excretion of salicylates. Careful monitoring of urinary output is necessary, and caution should be taken to avoid overhydration.

Relapse and death, after initial recovery, have been attributed to incomplete gastric emptying and delayed absorption.

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Gram-negative Skin Infections

Clinical Notes

JERE D. GUIN, M.D.
Kokomo

ANTIBIOTIC TREATMENT of bacterial infections of the skin is often directed against *Staphylococcus aureus* and group A beta hemolytic streptococci. Unfortunately, Gram-negative bacteria that tend to inhabit ulcers, wounds and other moist skin lesions may not respond. Gram-negative organisms are often cultured from the nasal mucosa, wet toe webs, skin under loose toenails, and moist areas, e.g., the axillae and perineum. Sometimes superinfection by *Pseudomonas* spp. complicates eruptions of the ear canals, with resultant tissue destruction by bacterial proteases. Such enzymes are active either at a neutral or alkaline pH, so the condition sometimes responds to topical applications of dilute acetic acid.

Acne patients on long-term antibiotic therapy occasionally develop an overgrowth of Gram-negative bacilli that do not respond to the antibiotic used.[1] Such organisms probably arise from the nasal mucosa where their prevalence on culture increases from about 40% in normals to over 70% in those on antibiotics.[2] While antibiotic sensitivity testing is not routinely available for *Propionibacterium acnes* (the anaerobic organism associated with acne vulgaris), that methodology is very helpful in Gram-negative acne. However, clinically effective antibiotic dosage may require adjustment upward as levels for many antibiotics within abscess cavities are only 13-27% of peak serum levels.[3] When no suitable systemic antibiotics are available, treatment comprises discontinuing present antibiotic therapy and adding topical agents such as Castellani's paint or gentamycin cream (if the organism is sensitive). Treatment with 13-cis-retinoic acid may also benefit Gram-negative acne,[4] but improvement requires several weeks and may not be as long lasting as it is in acne.

A striking picture of green toenails[5,6] is usually caused by *Pseudomonas aeruginosa* growing where the nail is separated from the nail bed (onycholysis), and this may start with paronychia.[5] Any treatment that dries the infected surface such as removing the loose part of the nail is likely to help.[5]

Toe web infections, with scaling and maceration, occur under conditions of high humidity and elevated temperatures.[7] Woods lamp (black light) examination will usually demonstrate a greenish-white fluorescence caused by water soluble pigment, pyoverdin.[8] Cultures are positive for *Pseudomonas aeruginosa*.

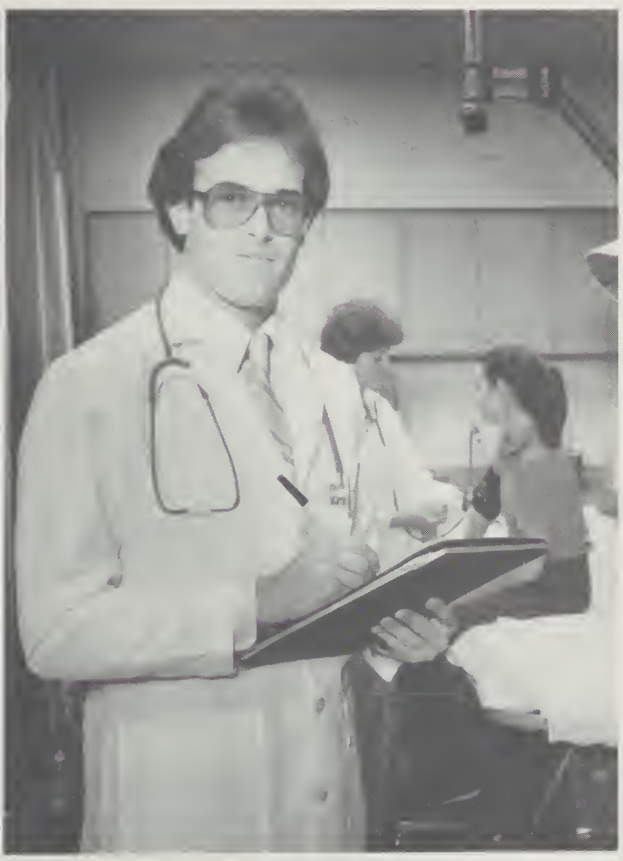
Epidemics of superficial and often mild folliculitis have occurred following use of a contaminated whirlpool bath or swimming pool.[9,10,11] Chlorination may[12] or may not[13] control this complication, although the chlorine levels in epidemics are often suboptimal. Warmer temperatures (approaching 41° C) and a high nitrogen load encourage growth of these organisms.[14] Anything that dries the skin including topical Castellani's paint will help such an eruption, and, occasionally, oral antibiotics are useful.

Gram-negative bacteria are often superimposed on extensive burns, where immunosuppression may contribute to bacterial sepsis.[15] In such patients, polymorphonuclear leukocytes demonstrate defective chemotaxis, perhaps due to a serum factor that is able to suppress phytohemagglutinin-induced blastogenesis.[15] *Pseudomonas aeruginosa* elaborates a number of injurious products including a lipopolysaccharide endotoxin, proteases, hemolysins, leukocytin, and other materials.[16] In extensive systemic infections, endotoxin A and other products cause decreased cardiac output, hypotension, clotting abnormalities, hepatocellular necrosis, and shock.[17] Recently, antibodies have been manufactured using heat-killed *Escherichia coli* J5, which lacks an oligosaccharide side chain in its lipopolysaccharide so that the core is exposed for antibody formation. This antiserum reduced the mortality in one series from 77% to 44%,[18] but its potential for benefit in skin infection is uncertain.

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PUBLIC HEALTH NOTES

"The accurate collection, tabulation and analysis of records of births, stillbirths, deaths, marriages, divorces and sickness may be said to constitute the bookkeeping of humanity. The bookkeeping of dollars is very important, but of far greater importance is the bookkeeping of those events in the lives of human beings which are fundamental to the practical application of hygiene."

* * *

"The two great important events in the lives of men are birth and death; the alpha and omega, the beginning and the end. For a state not to make these events of accurate record for each individual is to neglect to keep abreast of practical civilization; yes, to be really civilized."

These prophetic words are as applicable today as when they were spoken as part of the chairman's address to the Section on Preventive Medicine and Public Health at the St. Louis meeting of the American Medical Association in June 1910 by J. N. Hurty, M.D. of Indianapolis.

When the local health departments were organized in 1882 one of the primary duties delegated to local health officers was the collection of birth and death records for their respective geographic health jurisdictions. These records were then, and are today, of vital importance in the development and analysis of statistics needed to estimate the future needs for housing, schools, health care facilities, etc.

Today, more than ever, health departments must carefully evaluate the needs of the community they service and budget their expenditures to implement programs and services that will enhance the quality of life. The analysis of statistical data contained in birth and death records is also an invaluable aid to other state and local governmental agencies as they study the changes in population composition and rates of growth to determine their priorities.

Standard certificates for the registration of vital events were developed in 1900 by the U.S. Bureau of the Census to achieve uniformity in information upon which national statistics are based. This function today is assigned to the Division of Vital Statistics of the National Center for Health Statistics (NCHS), which administers the cooperative registration system. This system comprises 57 registration areas: each state, the District of Columbia, New York City, American Samoa, Guam, Puerto Rico, the Virgin Islands and the Trust Territory of the Pacific Islands. The events recorded in Indiana are tabulated with nationwide occurrences and may influence a major public program.

The standard certificates used today are the end result of a cooperative effort between federal agencies and the individual registration areas. Each item has been evaluated for its registration, legal, statistical, medical and research value.

While the availability of vital records for statistical analysis is important to the community, the individual records filed for one's own family are of priceless value in the determination of personal and property rights. Sooner or later, every citizen has the need for certified copies of birth and death records filed with the local or state registrar.

Certified death records are needed for the payment of insurance proceeds, property transfers, estate settlement and government benefits. Evidence of age is commonly required for school enrollment, drivers licenses, marriage licenses, overseas travel, retirement and government benefits. A certified birth certificate is requested for legal and personal identification for these purposes and many others.

Many individuals are dismayed when they are informed that the "birth certificate" they have protected and cherished for many years is not a legal document. The ornately designed and frequently footprinted certificate received from the hospital is only of personal value as this document does not prove that the birth was properly recorded. A legal birth certificate includes the name at birth, place of birth, date of birth, names of parents and the state or country of their birth, the date the record was filed, and the official signature and raised seal of the issuing health department.

The key to the registration system is the cooperative effort of the individuals who generate each record. The record needed immediately or in later years will not exist without the concentrated effort of the physician in attendance, medical records personnel, funeral directors and coroners.

Doctor Hurty related this incident in his 1910 address: "Farmer Hadley of Indiana, dying, left his valuable farm in trust to his unthrifty son, to go to his granddaughter upon her 21st birthday. The girl had been told the date of her birth and had always celebrated as her birthday the annual recurrence of the same. However, when she claimed she was 21, and tried to claim her inheritance, her father denied her age, saying she was only 19. The family Bible was appealed to, but the leaf with the family record was gone. No birth record had been rendered, and the attending physician was dead. The court was in a quandary. A Solomon was needed for judgment. At last a neighbor remembered that a valuable cow belonging to the grandfather had given birth to a calf on the day the girl was born, and he would swear to it. Perhaps the grandfather had recorded the date of the birth of the calf. His farm books showed this to be the case. The date of the birth of the human being was established."

We can all appreciate the mental anguish experienced in dealing with the mounds of paperwork generated by our modern society. How many times have we heard someone say, "If it weren't for the paperwork, I could get some work done." These "pieces of paper" are no larger than the others, but their importance and value are unequaled.

The cooperation of the medical profession in the accurate completion of vital records is absolutely critical and appreciated. For further discussion or information, please contact Annabelle Gough, director, Vital Records, Indiana State Board of Health, Indianapolis—317/633-0276.



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**EVERY PHYSICIAN'S OFFICE—
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CANCER CORNER

The National Cancer Institute (NCI) has developed a nationwide cancer information database called Protocol Data Query (PDQ). The database is now available to health professionals on the National Library of Medicine (NLM) MEDLARS System, and at many hospitals, libraries, and universities, including all U.S. medical schools.

PDQ's initial database contains over 600 active treatment plans that are part of NCI's Cancer Therapy Evaluation Program. Featured also are the names and telephone numbers of physicians to contact at NCI-funded institutions that belong to 15 clinical trial groups, and 21 cancer centers throughout the United States. These contact physicians are cross-referenced by cancer site, treatment plan, and geographic location.

The PDQ database will be updated each month. The updated information will reflect new protocols and changes in existing protocols as well as changes in information regarding physicians and institutions.

The description of each treatment plan, or protocol, includes its title, objectives, and criteria for acceptance into that clinical trial. In many of these clinical trials, scientists are comparing the effectiveness of different treatment modalities. Criteria for acceptance into a protocol are a cancer patient's characteristics, such as age, treatment history, stage of disease, etc. Complete technical details of the protocols remain available to physicians through the CLINPROT★ database as well as in the NCI publication, "Compilation of Experimental Cancer Therapy Protocol Summaries."

"NCI's information has been available in our publications and computer printouts, but PDQ will make it instantly available all across the United States," says NCI Director Vincent T. DeVita, Jr., M.D.

Elliott Stonehill, Ph.D., NCI assistant director, is coordinating the development of the project, in collaboration with Robert J. Esterhay, Jr., M.D.

NCI is assembling the PDQ database in stages. The first stage of PDQ contains the protocols (by titles) of Phase II and Phase III studies currently used by 15 cooperative study groups, the cancer centers, and intramural NCI researchers.

A second, future stage of PDQ will provide cancer treatment information tailored to fit the patient's characteristics, such as age, sex, medical history, and stage of disease. PDQ will provide survival statistics for similar patients, protocols used to treat them (both generally accepted treatment approaches and clinical trial regimens), protocol results (including possible side effects), and the institutions that follow these protocols.

The goal is to make PDQ a "user-friendly" database, providing fast and easy to understand information about cancer treatment for the patient.

Commonly asked questions about PDQ:

1. **Can the public get PDQ?** Not yet. In the future, PDQ will be directly available to patients. Several home computer services have expressed interest in supplying PDQ to the public, but none of them has a projected date for access to PDQ. A list of NCI-supported clinical studies, extracted from the PDQ database, has been sent to the NCI Cancer Information Service (CIS). For information from this list, or to ask any question about cancer, call the CIS:

1-800-638-6694 (for most states)
1-800-492-6600 (from Maryland)
1-800-638-6070 (from Alaska, Hawaii)

2. **How can doctors use PDQ?** PDQ is available on the National Library of Medicine's MEDLARS System. The System can be accessed at more than 1,800 hospitals, libraries, and universities, including every medical school in the United States. Searches of the PDQ database can be requested at these centers. There will be a charge for PDQ searches, which will vary depending on the center contacted. For the location of the nearest MEDLARS center that will provide this service, call the Cancer Information Service:

1-800-638-6694 (for most states)
1-800-492-6600 (from Maryland)
1-800-638-6070 (from Alaska, Hawaii)

Physicians who have a home computer with telecommunications capability or a computer terminal may apply to the NCI for a temporary access code to use PDQ. A physician who wishes to join the NLM MEDLARS System, for access to all NLM databases, should contact the National Library of Medicine, NIH, Bethesda, Maryland 20205.

3. **Will PDQ tell a primary care physician exactly how to treat a cancer patient?** No. PDQ will provide information on where the latest clinical research treatment methods funded by NCI are being tested and which specialists use them. The database is not designed to provide treatment instructions.

4. **How will PDQ be kept up-to-date on cancer treatment?** The most recent information available will be added to the database every month. Corrections will also be made at that time.

5. **Do doctors, patients, and the public need PDQ?** Yes. Because there are so many research efforts throughout the United States, successful new treatment methods may not immediately reach all who might benefit. PDQ can help shorten the time lag by quickly informing doctors and their cancer patients about facilities using the latest available protocols.

The public needs PDQ because people want information about the most recent developments in cancer treatment in a form they can understand. Therefore, NCI plans that in the future PDQ will explain complex treatments and give the most recent survival statistics. PDQ can also offer the cancer patient the comfort of knowing that hundreds of dedicated scientists are working toward cure of his disease: what they are doing, how well it is going, and how these scientists and doctors can be contacted.

★NCI's database on clinical protocols, also available on the NLM MEDLARS System.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy,* Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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References: **1.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Kramer MJ, Mauriz YR, Robertson TL, Timmes MD: Morphological studies on the effect of subinhibitory and inhibitory doses of sulfamethoxazole-trimethoprim combination on *Escherichia coli.* Presented at the 12th International Congress of Chemotherapy, Florence, Italy, Jul 19-24, 1981. **3.** Spicehandler J *et al: Rev Infect Dis 4*:562-565, Mar-Apr 1982. **4.** Stamey TA: *Pathogenesis and Treatment of Urinary Tract Infections.* Baltimore, Williams & Wilkins, 1980, p. 13. **5.** Ronald AR: *Clin Ther 3*:176-189, Mar 1980. **6.** Cooper J, Brumfitt W, Hamilton-Miller JMT: *J Antimicrob Chemother 6*:231-239, 1980. **7.** Gower PE, Tasker PRW: *Br Med J 1*:684-686, Mar 20, 1976. **8.** Cosgrove MD, Morrow JW: *J Urol 111*:670-672, May 1974. **9.** Iravani A *et al: Antimicrob Agents Chemother 19*:598-604, Apr 1981. **10.** Schaeffer AJ, Flynn S, Jones J: *J Urol 125*:825-827, Jun 1981. **11.** Rous SN: *J Urol 125*:228-229, Feb 1981. **12.** BAC-DATA Medical Information Systems, Inc., Bacteriologic Reports, Winter Series, 1976-82.

Bactrim™ DS

(trimethoprim and sulfamethoxazole/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, hepatocellular necrosis, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients. *Pregnancy:* Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, hepatocellular necrosis, diarrhea, pseudomembranous colitis and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: *Not recommended for infants less than two months of age.*

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 20. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per tea spoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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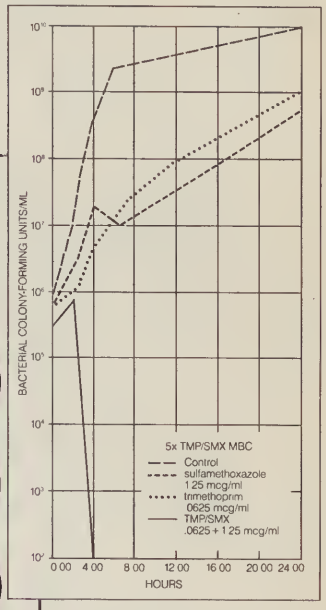
Bactericidal activity with minimal resistance

Percent of isolates of common uropathogens sensitive to BACTRIM and to other antimicrobials

	Escherichia coli	*Klebsiella pneumoniae*	*Proteus mirabilis*	*Proteus vulgaris*	*Proteus sp.*	*Enterobacter sp.*	*Enterobacter aerogenes*	*Enterobacter cloacae*
BACTRIM	**96%** 328,598	**89%** 63,551	**93%** 62,691	**84%** 4174	**91%** 4381	**88%** 1736	**96%** 7326	**92%** 11,856
ampicillin	72% 345,209	5% 65,466	85% 67,338	16% 4381	70% 4402	10% 1775	9% 7759	11% 12,091
cephalexin†	81% 343,339	85% 67,031	92% 67,027	16% 4398	80% 4365	22% 1834	13% 7571	12% 11,846
nitrofurantoin	97% 307,785	65% 61,162	7% 59,775	13% 3848	14% 3059	67% 1707	60% 7109	67% 10,830

†Analogous to cephalothin, the primary antibiotic disc used in testing.
Source: The Bacteriologic Report, BAC-DATA Medical Information Systems, Inc., Winter Series, 1981-82.
Numbers under percentages refer to the projected number of isolates tested.

RAPID *IN VITRO* DESTRUCTION OF *E. COLI* *



Kill curve kinetics of Bactrim and its individual components against *E. coli in vitro*.[1]

The bactericidal action of Bactrim has been demonstrated *in vitro* on laboratory strains of *E. coli*[1,2] and on clinical isolates of *E. coli, Klebsiella-Enterobacter, Proteus mirabilis* and *Morganella morganii*[3]—the most common causative organisms of urinary tract infections.[4] More than 100 published studies attest to the efficacy of Bactrim in recurrent urinary tract infections due to these organisms.[5] In comparative studies with other antimicrobials, Bactrim has consistently demonstrated unsurpassed efficacy during therapy.[6-11]

Resistance to Bactrim develops more slowly than to either of its components alone *in vitro*.* Among urinary tract isolates, resistance has rarely emerged in susceptible strains.[5,12] Bactrim is contraindicated in pregnancy at term, during lactation, in infants less than two months old and in documented megaloblastic anemia due to folate deficiency.

Initial episodes of uncomplicated urinary infections should be treated with a single-agent antimicrobial.

Bactrim™ DS

(trimethoprim and sulfamethoxazole/Roche)

b.i.d. *for recurrent urinary tract infections*

**In vitro* data do not necessarily predict clinical results.

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See next page for references and a summary of product information.

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J-9043-4 July 1981

EDITORIALS

The Growth of PICI

Physicians Insurance Company of Indiana (PICI), the ISMA-sponsored professional liability protection company, was created to furnish occurrence type medical professional liability protection now and in the future for ISMA members who are licensed by the Indiana State Medical Licensing Board, practice the majority of the time in Indiana and meet the company's underwriting requirements.

Several features characterize the PICI policies. Physician's consent is required for settlement before judgment of any claim. Primary partnership and corporation coverage is not charged if all members of the corporation have primary coverage with PICI. Claims receive immediate attention. There will be no surcharge because a claim has been filed against the policy holder.

Operations commenced July 1, 1982. During the remainder of 1982 PICI wrote policies for 128 physicians and nine corporations. In 1983 and up to Feb. 18, policies were written for 26 new physicians and two corporations. Premium income in February had attained a total of $244,380 since July 1982.

The net admitted assets have increased to $3,157,353. $2.5 million of the investment account is invested in bonds with yields between 14.5% and 15.375%.

On Jan. 2, 1983, the Indiana Insurance Department approved PICI for other lines of property and casualty coverages. The company has policy lines now to cover professional office protection, automobile protection and homeowner's protection. Mailings have been made and agents have been appointed. Advertisements are in the mill. The agents already appointed are enthusiastic about the type of policies and the rate levels.

The Security and Exchange Commission has approved the making of a secondary offering of the Class A shares owned by PICO and PICOM. City Securities Corporation is handling this offering. A prospectus has been produced and mailed to ISMA members.

Physicians Insurance Company of Indiana (PICI) is the happy consequence of careful and skillful planning. It is young but, with the aid of conservative management and sound financial policies, is developing into a stable and reliable instrument for the protection of the Indiana medical profession.



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EDITORIALS

Drugs for Rare Diseases

The program to encourage the production of drugs for rare diseases is off to a good start.

The Commission on Drugs for Rare Diseases was formed by the Pharmaceutical Manufacturers Association on July 8, 1981. Eight pharmaceutical industry experts in the research and development of drugs and devices for use in rare diseases form the commission. Dr. Theodore Cooper is its chairman.

The commission is assisted by outside consultants and by liaison representatives from the FDA, the National Institutes of Health and the Centers for Disease Control. Attendance and participation of the public is encouraged at meetings. Public input has already been most helpful.

The mission is to receive proposals concerning research and development of drugs and devices for rare or uncommon diseases in the United States. The purview of the commission has been extended to diseases that afflict large segments of the population in other parts of the world. Studies will include entities which are effective in prevention, diagnosis or treatment.

Congress has passed a bill to provide financial incentives and tax benefits to pharmaceutical manufacturers to encourage the research, clinical investigation and distributional expenses for this class of drugs and devices.

Despite the fact that pharmaceutical houses have, for many years, financially supported the well known system of public service drugs, and despite the established custom of the FDA in approving drugs with a limited future, and despite the use of the FDA compassionate investigational new drug exemption, the new program has, in a relatively short period of time, given encouragement and stimulation to a warmhearted and practical search for the means of alleviating disability and suffering, notwithstanding its rarity.

In 1982 the proposals and inquiries listed below were received by the commission:

1. L-5-hydroxytryptophane for use in post-hypoxic myoclonus. The Bolar Pharmaceutical Company will undertake additional studies.

2. Triethylenetetramine for use in Wilson's disease. Merck & Company will conduct studies to obtain approval.

3. Hematin for use in hepatic porphyria. Abbott Laboratories will seek a product license.

4. The "U" Series for use in Down's syndrome. This was returned to the proposer with recommendation for further basic study.

5. I^{131} Iodonorcholesterol for use in the diagnosis of adrenal gland tumors. Negotiations for commercial development are under way.

6. Cysteamine and phosphocysteamine for use in nephropathic cystinosis. An additional supply of the phosphocysteamine necessary for additional studies.

7. Acethydroxamic acid for use in the prevention and dissolution of infection-induced urinary stones. The nominator was requested to prepare a formal proposal to include all information and data for scientific review.

8. The Syncardon, a device used in the treatment of arteriolar occlusive disease. This is still under review.

9. Alpha-galactosidase. An enzyme proposed for use in Fabry's disease. This is still in the initial stages of review.

Two inquiries concerning possible new uses of marketed drugs for rare disease indications have been referred to the manufacturers. In addition, inquiries have been made in regard to five other compounds which may be admitted to full review later.

The commission considers its first year of work has accomplished much. Certainly, with a start like this, the pharmaceutical industry may look forward to enlisting more and more resources and friends for the continuation and enlargement of one of the world's great treasure hunts.

Advertising Rx Drugs

Direct-to-consumer advertising of prescription drugs has been in the discussion stage lately. Some manufacturers must be considering the possibility seriously, else there could not be so much mentioning without doing. The Food and Drug Administration does not have authority to prohibit the practice. However, FDA, when discussing the possibility, sounds as though such authority would be welcome. FDA certainly has not encouraged the scheme.

Consumer groups at an FDA forum on the subject created the impression of almost unanimous and definite opposition. The idea was that consumers want more information on drugs but not by way of advertising. The Patient Package Inserts, which have been held in abeyance, were the favorites.

One worry expressed by the FDA was that the ads, which according to present law cannot be censored or prohibited, might become more promotional than educational. This is a good point since advertising is usually promotional.

There are other difficulties. The AMA is quoted as saying, "Will the information come between patient and physician?" That's an easy question to answer. Of course it will. And the discussion it opens will be between a patient with "wisdom" acquired by reading a five-minute disclosure in an ad and a doctor who really knows what it's all about or, at least, is as close to that informed condition as a good education and years of practice can accomplish.

The Pharmaceutical Association took a poll of practicing pharmacists and found 69% against, better than two of three.

An officer of the Association of Advertising Agencies opined that, even if the information was not all inclusive, the advertisement would encourage patients to seek further enlightenment from the physician.

It may be that, since Patient Package Inserts are now in limbo, the AMA-sponsored Patient Medication Instruction (PMI) Program will supply the drug information that most patients desire and should have. The advantage of PMI is that the instructions are to be dispensed by physicians who will supply them to those who, in the physician's judgment, will profit by their use.

If provision of drug information is the real function of direct-to-consumer advertising, such a function may be accomplished by the PMI Program. If commercial promotion of drugs is the real reason for the interest in such advertising, there can be no doubt as to what should be its fate.

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LETTERS

Response from The Tobacco Institute

In THE JOURNAL of the Indiana State Medical Association, February 1983, a contributor compared lung cancer mortality between the Amish and non-Amish populations of Lancaster, Pa.

His major conclusion, which was widely reported in newspapers and on radio and television, was that what he calls "the smoke-free environment of the Amish" was responsible for an absence of lung cancer among non-smokers. Conversely, the publicity suggested, the presence of environmental smoke causes lung cancer among non-smokers.

The author postulated that among the Amish population, which he estimated at 12,000, there should have been expected 1.2 cases of lung cancer during the six-year period studied. He based this on his statement that there had been 349 lung cancer deaths in six years in the county and on the hypothesis that nine of 10 should have been expected to involve smokers.

Not reported in the article is that the lung cancer death rate in the U.S. is approximately 84 per 100,000. If the Lancaster population—349,500 as stated by the author—had the same rate, it would have experienced 1,761 lung cancer deaths in a six-year period, not 349. The extremely low rate reported in the county suggests that extrapolation of conclusions applicable to the general population is not possible.

The U.S. lung cancer death rate indicates that the probability that one person in a population of 12,000 will die of lung cancer during a six-year period is about 50 in 10,000, (0.005), *on average*. Common sense suggests, therefore, that if *no* lung cancer deaths are observed in a *certain segment* of 12,000, this result should neither be surprising nor the basis for any conclusions about causality.

William Kloepfer, Jr.
Senior Vice President-
Public Relations
The Tobacco Institute
Washington, D.C.

Social Security Disability Claims to be Reviewed

Under a recent court order, the Social Security Administration will review certain disability claims in Illinois, Indiana, Ohio, Michigan, Minnesota and Wisconsin, where individuals with mental impairments were either denied disability benefits or terminated from the disability rolls.

Certain individuals who were either denied Social Security disability benefits or supplemental security income disability benefits or whose disability benefits were terminated on or after March 1, 1981, and before Jan. 4, 1983, who alleged a mental impairment (other than mental retardation) and who were between the ages of 18 and 49 may have their eligibility reviewed.

If because of your special concerns for the mentally impaired, you know of anyone who meets these requirements, we ask that you advise that person to either visit or telephone the local Social Security office to obtain further information. If you are representing such a person, you may contact a Social Security office on behalf of that person.

Dept. of Health & Human Services
Social Security Administration
Baltimore, Md. 21235

Prejudicial Selection of Facts and Figures?

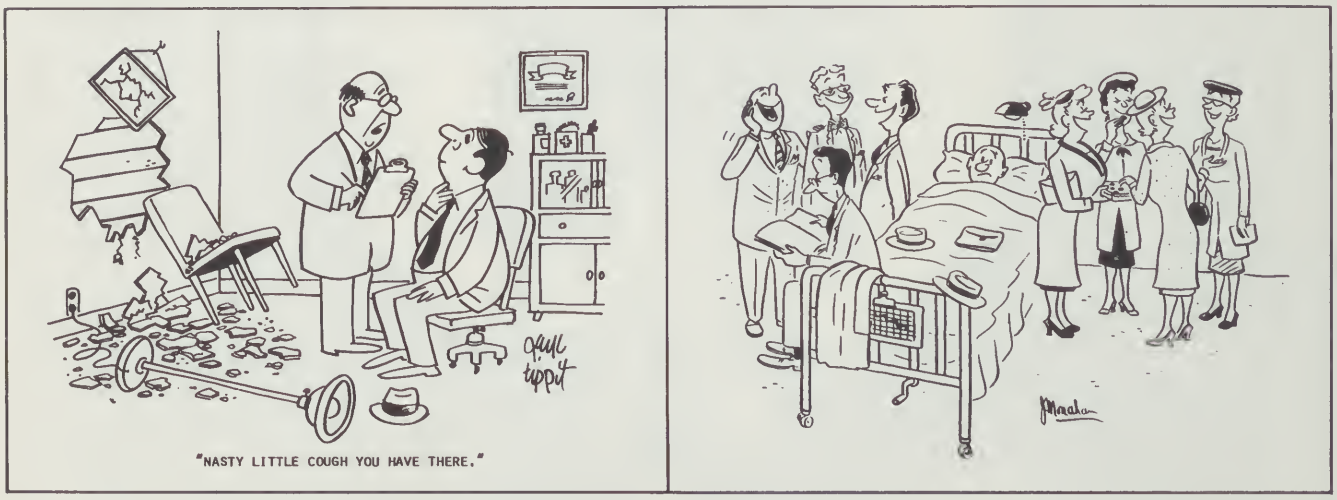
In the April issue of THE JOURNAL, a commentary is published by Richard L. Lesher, president of the U.S. Chamber of Commerce.

I have no desire to quarrel with Mr. Lesher's conclusions regarding the safety of our airways, highways and work places. But I do wish to point out that he has de-emphasized some of the reasons for improvement of the figures he cites.

It's logical that if fewer people use the facilities offered, there will be fewer injuries. In the use of highways, the price of gasoline and fuel oil have contributed to decreased usage. Scheduled airline flights have been decreased considerably because of the shortage of air traffic controllers that followed dismissal of the strikers. When it comes to the workplace, I believe that we must admit that far fewer people are present in the workplace now because of the recession.

Political consideration should never lead to unwarranted conclusions based only on prejudicial selection of facts and figures.

Harlan B. Moss, M.D.
Indianapolis



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Analysis of DRG Prospective Payment

An AMA Summary of HR 1900

THE SOCIAL SECURITY Amendments of 1983 (HR 1900) establish a new system for payment to hospitals of Medicare-covered inpatient hospital operating expenses on the basis of a prospective payment methodology based on discharges classified by diagnosis-related groups (DRGs).

Payment on the basis of prospective rates will become effective Oct. 1, 1983, with the new system phased in over a three-year period. The law also includes new provisions for Medicare payments to hospitals in accordance with state reimbursement control systems. Congress passed HR 1900 on March 24, and the President is expected to sign the bill soon.

The new prospective payment methodology generally will pay hospitals a fixed cost per discharge based on the discharge diagnosis of the patient. The system used for classification of patients will be the Yale University Diagnosis Related Group (DRG). Payment to a hospital will be payment in full except for deductibles and statutorily set copayments.

The new system covers all hospitals except psychiatric hospitals, rehabilitation hospitals, hospitals whose inpatients are primarily individuals under 18 years of age, and hospitals whose average length of stay is over 25 days. These excluded hospitals will continue to be covered by the existing Medicare cost-based reimbursement using the target rate provisions enacted in TEFRA last year. Furthermore, the Section 223 limits have been repealed for excluded hospitals and will have no substantive effect on DRG hospitals.

Starting this fall, a Medicare-covered hospital inpatient's expenses will be paid at a fixed rate based on the discharge diagnosis. . .

Phase-in of DRG Rates

In the fiscal year beginning Oct. 1, 1983, a hospital will have its payment set equal to 75% of the hospital's target amount (as determined under existing law) plus 25% of the Regionally Adjusted DRG Prospective Payment Rate.

In the fiscal year beginning Oct. 1, 1984, the payment will be based on 50% of the target amount plus 50% of the "applicable *combined* DRG prospective payment rate" (25% of a National Adjusted DRG Prospective Payment Rate; 75% of the Regional Adjusted DRG Payment Rate).

In the fiscal year beginning Oct. 1, 1985, hospital payment will be 25% of the hospital target amount and 75% of the DRG prospective payment rate (50% of the National Adjusted DRG Prospective Payment Rate and 50% of the Regional Adjusted DRG Prospective Payment Rate).

Finally, after Oct. 1, 1986, the amount received will be the National Adjusted Prospective Payment Rates (urban and rural).

Rate Determinations

The secretary of Health and Human Services will determine the National Adjusted DRG Prospective Payment Rate for each inpatient hospital discharge in fiscal year 1984, with a separate national rate for urban and rural hospitals.

The HHS secretary would determine a separate urban and rural Regional Adjusted DRG Prospective Payment Rate for each discharge in each of nine regions. The DRG rates will be adjusted for wage differentials for different geographic areas.

DRG Criteria

The HHS secretary is required to establish a classification of inpatient hospital discharges by diagnosis-related groups and a methodology for classifying specific hospital discharges within these groups. Each DRG will be assigned an appropriate weighting factor reflecting the relative hospital resources used with respect to discharges classified within that group compared to discharges

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within other groups.

The classifications and weighting factors are to be adjusted in FY86 and at least every four fiscal years thereafter to reflect changes in treatment patterns, technology, and other factors which may change the relative use of hospital resources. The Prospective Payment Assessment Commission (see below) will consult with and make recommendations to the HHS secretary concerning the need to make such adjustments.

Outlier Payments

The secretary is required to provide for an additional payment to covered hospitals for any discharge in a DRG where the length of stay exceeds the mean length of stay for discharges within that group by a fixed number of days or exceeds the mean length of stay by some fixed number of standard deviations, whichever is fewer in number of days.

In no case can total payments for outlier cases in a fiscal year exceed 6% or be less than 5% of total payments to be made to a hospital based on DRG for discharges in that year.

Medical Education

The secretary is required to provide for additional payment to hospitals for the indirect costs of medical education. Direct costs of medical education will continue to be paid on a cost basis.

Other Additional Payments

The HHS secretary is also permitted to make exceptions and adjustments in payment amounts in the other cases, including accounting for the special needs of regional and national referral centers (including hospitals of 500 or more beds located in rural areas), public and other hospitals that serve a significantly disproportionate share of low income patients or Medicare patients, and sole community hospitals.

Furnishing Services

The Act provides that all items or services furnished to a hospital inpatient which are entitled to be reimbursed under Medicare (other than physician services) must be furnished by the hospital or under arrangements with the hospital.

Judicial Review

There will be administrative or judicial review of all issues except those relating to the determination of any of the adjustments to the DRG payment amount, the establishment of the DRGs, the methodology used for classifying discharges within each DRG, or the weighting of each DRG.

Budget Neutrality

The secretary is to provide for adjustments in applicable percentage increases and average standardized amounts to assure that aggregate payment to hospitals for services to hospital inpatients under the new DRG system are not greater or less than have been paid in a fiscal year under the law in effect (TEFRA) prior to the enactment of HR 1900.

Prospective Payment Assessment Commission

The director of the Congressional Office of Technology Assessment is required to appoint a Prospective Payment Assessment Commission composed of 15 independent experts in the provision and financing of health care, including but not limited to physicians, registered professional nurses, employers, third-party payers, persons skilled in biomedical research, and experts in technological and scientific research and development in the health care area.

In addition to consulting with the HHS secretary concerning the need to make adjustments in DRG classifications and weightings, including new DRGs when necessary, the commission will also be charged with reviewing the "applicable percentage increase factor" (1% plus increase in market-basket mix of goods and services) and recommend appropriate percentage changes in that factor.

The commission will be required to collect information on medical and surgical procedures and services, including information on regional variations in medical practice and lengths of hospitalization and other patient-care data, giving special attention to treatment patterns for conditions which appear to involve excessively costly or inappropriate services not adding to quality of care provided.

The commission will also collect and assess factual information to assess the safety, efficacy, and cost-effectiveness of new and existing medical and surgical procedures, giving special attention to the needs of updating existing DRGs, establishing new DRGs, and making recommendations on relative weighting factors.

Penalties for Unnecessary Admissions

The secretary may deny payment in whole or in part under Part A for services provided with respect to unnecessary or multiple admissions, or require the hospital to take corrective action, if the secretary determines, based upon information supplied by a utilization and quality control peer review organization (PRO), that in order to circumvent the DRG payment methodology a hospital: has admitted Medicare beneficiaries unnecessarily; has permitted the unnecessary multiple admissions of the same such individual; or committed other inappropriate medical or other practices with respect to Medicare patients. A hospital may not charge any individual or any other person for inpatient hospital services for which such individual would have been entitled to have payment made under Part A but for the denial or reduction of payments.

Capital-Related Costs

Capital costs will continue to be reimbursed on a cost basis through 1986. After Sept. 30, 1986, no payment will be made under the DRG prospective payment system for capital-related costs of capital expenditures for inpatient hospital services in a state unless the state has a Section 1122 agreement with the secretary, and under that agreement the state has recommended approval of the capital expenditure, provided that no legislation is enacted prior to that date

which includes capital-related costs in the prospective payment system.

The new law makes amendments to Section 1122 including an increase in the maximum threshold a state may use for determining which capital projects are subject to Section 1122 review from $100,000 to $600,000.

Return on Equity Capital

The secretary must provide that the amount allowable for a return on equity capital for hospitals be equal to amounts otherwise allowable under regulations in effect on March 1, 1983, except that the rate of return to be recognized will be reduced from 1½ times the average rates of interest on obligations issued for purchase by the Federal Hospital Insurance Trust Fund to an amount equal to that rate.

Peer Review

A hospital will be required to contract with a utilization and quality control peer review organization (PRO) serving its area. The PRO will be required to review: the validity of diagnostic information provided by the hospital for purposes of payment; the completeness and adequacy of care; the appropriateness of admissions; and the appropriateness of care provided to outlier cases.

Hospitals must begin contracting with PROs where there is a PRO in the hospital's area from the date of enactment through Sept. 30, 1983. For areas where there are PROs, hospitals must be under contract review by Oct. 1, 1983, or they will receive no Medicare reimbursement.

All hospitals must have PRO contract review by Oct. 1, 1984. If there is no contract and review, a hospital will receive no reimbursement under Medicare. This penalty will apply even if there is no approved PRO in the area.

Hospital Cost Reporting

The secretary is required to maintain a system for reporting costs of hospitals receiving DRG payments.

Reports and Studies

Within 18 months of enactment, the secretary is required to study, develop and report to Congress on legislation by which capital-related costs, such as return on net equity, associated with inpatient hospital services can be included within the prospective payment amounts.

The secretary is to study and report to Congress at the end of each year on the impact of the prospective payment methodology during the previous year on classes of hospitals, other providers, beneficiaries, other payors for inpatient hospital services, and on the impact of computing DRG prospective payment rates by census division rather than exclusively on a national basis.

During FY84, the secretary is to begin collection of data necessary to compute the amount of *physician charges attributable* by DRGs to physicians' serv-

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ices furnished to inpatients of hospitals whose discharges are classified within those groups. The secretary shall include in a 1985 report to Congress recommendations on the advisability and feasibility of providing for determining the amount of the payments for physicians' services furnished to hospital inpatients based on the DRG type classification of the discharges of those inpatients—with legislative recommendations.

In the secretary's 1985 report to Congress, there must be included results of studies on the following: feasibility and impact of eliminating or phasing out separate urban and rural DRG prospective payment rates, extension of DRG to hospitals not covered by DRG (psychiatric hospitals, long-term facilities, etc.), issues involved in determining outlier cases and modifications of DRGs, the impact of DRG on hospital admissions and the feasibility of making a volume adjustment in the DRG payment rates or requiring pre-admission certification in order to minimize the incentive to increase admissions.

The secretary is also required to study the feasibility and desirability of applying the DRG payment methodology to payment by all payors for inpatient hospital services.

In his annual report to Congress in 1986, the secretary is required to include the results of a study examining the overall impact of state systems of hospital payment, particularly assessing their impact not only on the Medicare program but also on the Medicaid program and on payments and premiums under private health insurance plans, and on tax expenditures.

The secretary is required to study and make legislative recommendations to Congress with respect to an equitable method of reimbursing sole community hospitals which take into account their unique vulnerability to substantial variations in occupancy.

The secretary is also required to report on the appropriate treatment of uncompensated care costs and adjustments that might be appropriate for large teaching hospitals located in rural areas.

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AUXILIARY REPORT

Hulda Classen (Mrs. Peter)
President, ISMA Auxiliary

The 60th Annual Session of the AMA Auxiliary will have its formal opening session on June 19 at 5:30 p.m.; followed by a reception to honor Betty Payne, president and Glenda Bates, president-elect.

On Monday, June 20, at an 11:30 brunch to honor former presidents and honorary members, Shana Alexander will be the featured speaker. She is the author of *Very Much a Lady* and *State-by-State Guide to Women's Legal Rights*. Brunch ticket, $20.

Also on Monday there will be a "Meet the Candidates" session. Indiana has two candidates—Marge Smith, Fort Wayne, for nominating committee and Ruth Gattman, Elkhart, for vice-speaker of the House.

Monday at 8 a.m. the reference committees will conduct hearings. These hearings are open to all members and guests.

The events of Tuesday, the 21st, are the reports of the state auxiliaries with Marge Smith, first vice-president, presiding; a luncheon with Ambassador John A. Volpe, chairman of the Presidential Commission on Drunk Driving, will be the speaker. The time, 12:30 p.m.; luncheon tickets, $20.

Another Tuesday event is a 3:30 p.m. symposium—topic, "The Days of our Lives." Nancy A Roeske, M.D.—director of Undergraduate Studies and professor, Department of Psychiatry, Indiana University School of Medicine—will discuss the social history of women.

The convention will begin on Sunday with workshops—AMA-ERF, Health Projects, Legislation, Membership; and end on Wednesday with Recognition Awards, Installation of Officers, Inaugural Address by Glenda Bates. At 12 noon there will be a light buffet luncheon sponsored by the Auxiliary to the Medical Association of Georgia.

There is time allotted on the AMA Auxiliary agenda for auxilians to participate in the opening of the AMA House of Delegates on June 19 and to be present at the inauguration of the AMA president on June 22.

The AMA Auxiliary Convention is held at the Drake Hotel during the time the physicians meet in AMA House of Delegates sessions at the Marriott. Physicians and spouses come to Chicago June 19-22. There will be workshops, seminars, educational presentations by eminent speakers. There will be time to study—to relax—to socialize—to celebrate. Special events and hotel reservation forms are in the May 1983 issue of FACETS. For further information contact the Indiana State Medical Association Auxiliary, 3935 N. Meridian St., Indianapolis 46208.

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Yet another benefit Valium affords is flexibility. Available in 2-mg, 5-mg and 10-mg scored tablets, Valium enables you to titrate dosage to individual patient needs. For the geriatric patient, a starting dosage of 2 to 2½ mg once or twice a day is recommended. And, for patients who forget or skip medication, you can prescribe Valrelease™ (diazepam/Roche) 15-mg slow-release capsules, knowing that Valrelease will assure all the benefits of Valium 5 mg *t.i.d.* with the convenience of once-a-day dosage.

Discontinuation of Valium (or Valrelease) is typically as smooth as its start in short-term therapy. However, Valium and Valrelease should be discontinued gradually after more extended treatment. As you diminish dosage, the built-in tapering action of Valium and Valrelease will help avoid rapidly recurring anxiety symptoms and symptoms of withdrawal, and will help ease the patient's transition to independent coping when therapeutic goals have been achieved.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome. *Oral forms* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures; tetanus; anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion.

The effectiveness of diazepam in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Tablets or capsules in children under 6 months of age; known hypersensitivity; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

> ***Usage in Pregnancy:*** **Use of minor tranquilizers during first trimester should almost always be avoided because their use is rarely a matter of urgency and because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral forms adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE: *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins,* i.e., *dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Injectable Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest; concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea; have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least 1/3, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs.

Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects — particularly with known compounds which may potentiate action of diazepam, *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed and tolerated).

The clearance of diazepam and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

INJECTABLE: Although promptly controlled, seizures may return; readminister if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, observed in patients during and after diazepam therapy are of no known significance.

INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.

In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Dosage: Individualize for maximum beneficial effect.

ORAL: *Adults:* Anxiety disorders, relief of symptoms of anxiety—Valium (diazepam/Roche) tablets, 2 to 10 mg b.i.d. to q.i.d.; or 1 or 2 Valrelease capsules (15 to 30 mg) daily. Acute alcohol withdrawal—tablets, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; or 2 capsules (30 mg) the first 24 hours, then 1 capsule (15 mg) daily as needed. Adjunctively in skeletal muscle spasm—tablets, 2 to 10 mg t.i.d. or q.i.d.; or 1 or 2 capsules (15 to 30 mg) once daily. Adjunctively in convulsive disorders—tablets, 2 to 10 mg b.i.d. to q.i.d.; or 1 or 2 capsules (15 to 30 mg) once daily.

Geriatric or debilitated patients: Tablets—2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated (see Precautions). Capsules—1 capsule (15 mg) daily when 5 mg oral Valium has been determined as the optimal daily dose.

Children: Tablets—1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use in children under 6 months). Capsules—1 capsule (15 mg) daily when 5 mg oral Valium has been determined as the optimal daily dose (not for use in children under 6 months).

INJECTABLE: Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)

For dosages in infants and children see below; have resuscitative facilities available.

I.M. use: by deep injection into the muscle.

I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., *dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcohol withdrawal, 10 mg I.M. or I.V. initially; then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses); in children *administer I.V. slowly*; for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary; in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available.

Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary, keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. Infants (over 30 days) and children (under 5 years), 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). Children 5 years plus, 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred); repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.

In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure; if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M.; in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectable form, patient may be placed on oral form if further treatment is required.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure; employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension. Dialysis is of limited value.

How Supplied:

ORAL: Valium scored tablets — 2 mg, white; 5 mg, yellow; 10 mg, blue — bottles of 100 and 500; Prescription Paks of 50, available in trays of 10; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25 and in boxes containing 10 strips of 10.

Valrelease (diazepam/Roche) slow-release capsules — 15 mg (yellow and blue), bottles of 100; Prescription Paks of 30.

INJECTABLE: Ampuls, 2 ml, boxes of 10; Vials, 10 ml, boxes of 1; Tel-E-Ject® (disposable syringes), 2 ml, boxes of 10. Each ml contains 5 mg diazepam, compounded with 40% propylene glycol, 10% ethyl alcohol, 5% sodium benzoate and benzoic acid as buffers, and 1.5% benzyl alcohol as preservative.

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BOOK REVIEWS

Nephrology Illustrated

An integrated test and color atlas, by A. W. Asscher, D. B. Moffat and E. Sanders. Copyright 1982, Gower Medical Publishing, Ltd., London.

The practice of the discipline of "Nephrology" had an enormous impetus as a clinical subspecialty with the advent of percutaneous renal needle biopsy. In fact, there seems to be a unique relation of microscopic pathophysiology to nephrology and this volume, written by two physicians and a surgeon of Cardiff, Wales, is filled abundantly with histopathological illustrations of renal lesions. A succinct text accompanies the pictures.

There are chapters on normal anatomy, development, investigative methods, all the usual renal diseases (and some unusual such as "Balkan Nephropathy" from ingesting infected grain along the Danube river basin), hypertension, renal failure and, finally, kidney transplantation.

The illustrations are well chosen, colorful, relative to the exposition and make this an easy reading book, which also has easily retrievable information. An excellent supplemental volume for all of us working in related medical fields.

Rodney A. Mannion, M.D.
LaPorte
Urological Surgery

Problems in Pulmonary Medicine for the Primary Physician

By Robert H. Poe, M.D. and Robert H. Israel, M.D. Copyright 1982, Lea & Febiger, Philadelphia. 410 pages, hardcover, $32.50.

The authors, Poe (director of a Pulmonary Unit) and Israel (Medicine), enlisted 15 of their fellow faculty associates in University of Rochester School of Medicine in the preparation of this useful book. Since its purpose is to offer guidance to physicians, most of whom are not primarily pulmonary disease specialists, the chapter headings relate to particular problems for which a physician or house officer may be seeking help—such as dyspnea, cough, hemoptysis, pleural effusion and the like. The information imparted is sufficient to answer most any question that may arise regarding diagnosis and management of the many pulmonary disorders they will encounter. In other respects, coverage is not as detailed as in the more comprehensive texts on pulmonary medicine.

Adult respiratory distress syndrome (ARDS) is one of the most difficult conditions that physicians must grapple with, often without the help of a pulmonary specialist. Anthony J. Fedullo, M.D., who discusses this condition, points out that if ARDS is treated primarily as cardiac decompensation, with which it is most frequently confused, the result may be disastrous for the patient. The normal alveolar-capillary junction is remarkable in that there is free passage of gases between alveolar space and capillary blood, but, except under considerable stress, the alveolar wall cannot be breached by blood or its fluid or molecular contents. When fluid enters the potential interstitial space in the lungs, it is drained away by small lymphatic channels . . . It is only when this mechanism is overwhelmed that passage of fluid into alveoli occurs. The causes are greatly increased hydrostatic pressure within capillaries (congestive heart failure) or a change in oncotic pressure within them and in the interstitium which surrounds them.

In ARDS, in which the pulmonary edema fluid has a protein content approximating that of blood, normal permeability barriers are affected so that large molecular-weight protein constituents can pass into the interstitial and alveolar spaces. At the same time, surfactant, which normally stabilizes aveolar shape, is decreased in activity or volume, and this tends to perpetuate alveolar collapse. When this occurs, the patient becomes anoxemic and cyanotic. His need, if this is the mechanism, is primarily for help with ventilation rather than for administration of a high concentration of oxygen.

The whole *clinical* picture including dyspnea, cyanosis, rales in the lungs, tachycardia and patchy infiltrates in the chest film may strongly suggest congestive heart failure. If a lowered PaO_2 and $PaCO_2$ found initially respond only minimally to O_2 administration and potent diuretics, ARDS should be suspected. In some instances, Swan-Ganz right heart catheterization may be necessary to make this differentiation. Left ventricular enddiastolic pressure less than 12 mm Hg is strong evidence against left ventricular dysfunction and suggests ARDS as the cause of pulmonary edema.

The list of disorders, which often are associated with ARDS and may be the sole cause, is very extensive. Among them are aspiration of gastric contents, water (drowning) or hydrocarbons (gasoline, kerosene); burns, pulmonary arrest, drug abuse, DIC, oxygen toxicity, pneumonia, sepsis, shock, smoke inhalation, pancreatitis; pulmonary embolization. Each of these potentially causative conditions is briefly discussed in the text.

Treatment, of course, cannot be standardized because it depends so importantly on the associated pathology. Among the important measures to be used, the author discusses corticosteroids, mechanical ventilation, oxygen (which must be used cautiously with constant monitoring), anticoagulation, etc. All of these modalities and many others are discussed in more detail in the excellent chapter on "Practical Respiratory Therapy." Also, a whole chapter is devoted to mechanical ventilators.

Taken altogether, this text, in the opinion of this reviewer, fulfills quite adequately its mission of giving guidance to primary physicians confronting a wide range of clinical pulmonary disorders.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Prentice-Hall announces a thoroughly revised edition of the practical reference book, the *Medical Word Finder*. It provides instant access to over 28,000 current medical terms. Problem words are listed by phonetic spelling to facilitate finding the correct spelling when the word is known only by its sound. Medical secretaries find it to be very valuable since it supplies accurate information on all questionable points and avoids "asking the boss."

Doubleday has released *Bulimia: The Binge-Purge Compulsion*. It was written by Janice M. Cauwels, a professional medical writer, to inform bulimics about the nature of their disease and proper treatment. $14.95.

BOOK REVIEWS

Learning Disabilities Explained

By Stanley S. Lamm, M.D., and Martin L. Fisch, Ph.D., with Don McDonagh. Copyright 1982, Doubleday & Company, Inc., New York. 247 pages, hardcover, $16.95.

The purpose of this book is to present to lay-people the definition of learning disability, the explanation of learning disability diagnosis, and presentation of treatments for learning disability. The book succeeds in its purpose.

At the Lamm Institute, a child thought to have learning disability is evaluated in three different ways: evaluation of physical and mental capacity, search for specific deficits, and examination for emotional complications. The first part consists of a childhood physical and neurological examination along with a psychological evaluation. The second group of evaluations consists of evaluations by remedial disciplines: occupational therapy, physical therapy, speech pathology/language therapy. The third group of assessments concerns itself with emotional difficulties—psychiatric and social evaluation. When a child with suspected learning disability has been evaluated in the preceding fashion, a multidisciplinary conference is held in a case management manner. The diagnosis is made and a recommendation for treatment is made.

The authors obviously feel that this method of diagnosis and treatment is optimal. They also have developed subsequent computerized follow-up.

Two following chapters list and answer frequently asked questions about learning disability and present a lay-person oriented description of the central nervous system.

Subsequent chapters discuss the pediatric neurological examination and treatment, psychological evaluation and therapy, psychiatric examination and therapy, occupational therapy evaluation and treatment, educational evaluation and remediation, speech and language evaluation and treatment, and social service evaluation and counseling.

There also is a glossary of frequently used terms. Still further, there is a list of sources of help listed by state (five are listed in Indiana).

Parents or relatives of children with suspected or diagnosed learning disability would find this book informing and reassuring. Physicians could confidently recommend this book to such people.

Alvin J. Haley, M.D.
Indianapolis
Family Practice

Clinical Ethics

By A. R. Jonsen, M. Siegler and W. J. Winslade. Copyright 1982, MacMillan Publishing Co., New York. 187 pages, $15.95.

For a variety of reasons, publications on medical morals and ethics are proliferating rapidly. Probably the availability of support systems to keep alive patients who are at the brink of death is the single most obvious reason, but there are others. The public, through all the methods of communication, is much more aware of what goes on in the practice of medicine than in years past. This fact, plus change in the spirit of the times and the spectre of malpractice suits, makes doctors more uncomfortable in "life and death" and even less critical clinical decisions when the propriety of what is being done might be questioned.

A few medical schools are now giving some instruction to students on medical morals and ethics. However, the manner in which most physicians handle these problems depends more on childhood home character building and the traditions of rectitude built up through the years by conscientious physicians, and absorbed by "osmosis," than upon any formal training. But things are changing. Physicians are being forced to give more attention to moral and ethical considerations. Complete dependence upon their own concepts of application of the Golden Rule is risky. Peer groups and the courts, as well as patients and their families, are examining their performances more critically than in the past.

This small volume in which a professional ethicist and a lawyer collaborate with a practicing internist offers some useful guildelines. It is divided into four sections entitled respectively (1) Indications for Medical Interventions (surgery, abortions, life support systems and the like, (2) Patient Preferences (patient questioning or fully accepting what the physician recommends), (3) Quality of Life (What there is to salvage when heroic measures are required to maintain physiologic function, etc.) and (4) External Factors.

Most doctors are familiar with the problems in the first three categories. Like the authors, they are aware the case presentations in each bring up more questions than answers. Yet a consideration of what the authors think may be helpful in arriving at their own decisions.

The last category of "External Factors" is more difficult to deal with. Such questions as the following constantly arise—can confidentiality be maintained when paramedical personnel, chaplains, insurance examiners, etc. have access to records?; weighing the cost of hospitalization and batteries of complicated tests against defense against malpractice; weighing the "right to medical care" against allocation of scarce and expensive resources; should prolonged and expensive care be given to criminals and mentally retarded persons and patients with known incurable disease; telling the truth about the health of patients to employers when such revelations may mean the loss of a job, etc. How far should a physician go in trying to be a good samaritan and a good citizen?

Obviously, every doctor must take time to do some soul-searching to know just where he stands in his task of maintaining health in his fellow citizens. This well organized volume will offer useful guidelines.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Clinical Ethics

By A. R. Jonsen, M. Siegler and W. J. Winslade. Copyright 1982, MacMillan Publishing Co., New York. 187 pages, $15.95.

Most books on medical ethics are written for philosophers or lawyers. Happily, this one is directed at intelligent laymen and "working doctors." Brief case presentations abundantly illustrate such difficult issues as when to withdraw life support, how to define brain death, refusal of treatment by competent persons, etc.

Three different perspectives are presented: the diminishing role of medical paternalism, the emphasis on patient autonomy, and the practical application of ethical principles like "above all, benefit the patient," "do no harm," "communicate honestly," and "do not let personal values prejudice medical decisions."

Of decisive importance is the patient's right (codified by Justice Cardozo in 1974) "to determine what shall be done with his body." Communications between physicians and patients should be truthful. Deception by stating what is untrue or by omitting what is true should be avoided. "A physician who ignores, neglects, or disregards patient preferences when they are relevant may be violating legal, ethical, and professional expectations."

All physicians, hospital chaplains, and others interested in the practical application of medical ethics will enjoy this pocket book. Highly recommended.

Alan T. Marty, M.D.
Evansville
Cardio-Vascular Surgery

Stand Tall! The Informed Woman's Guide to Preventing Osteoporosis

By Morris Notelovitz, M.D., and Marsha Ware. Copyright 1982, Triad Publishing Co., Gainesville, Fla. 208 pages, hardcover, $12.95.

This small volume deserves high praise: It addresses a prevalent, vexing problem; it spells out the latest information concerning both prevention and treatment; it is written and illustrated so as to be of maximal help both to the laity (notably, women) and to professionals. It deserves high readership among both groups.

It is written by well qualified individuals, Dr. Morris Notelovitz, founder and director of The Center for Climacteric Studies at the University of Florida, and Marsha Ware, a research associate at the Center. In discussing the subject of the book, osteoporosis, the authors cover basic bone physiology, the nature of the problem of osteoporosis, clues to its development, prevention, and treatment. Helpful case reports are included. The text emphasizes that what is needed for the prevention and treatment of osteoporosis is not a single wonder drug but, rather, knowledge and a multiphasic program based on that knowledge. The comprehensive level is well suited for both the professional and lay reader. The volume is well illustrated with photographs and line drawings. It also contains helpful tables and graphs. The book is hardcover, the print large and easily read, and the index and glossary more than adequate.

Considering that one-fourth of all women are affected by osteoporosis after the menopause and that many males also suffer from it, I believe it is recommended reading for the laity, especially women, for virtually all physicians, and for members of the allied professions—notably, physical therapists.

W.D. Snively, Jr., M.D.
Evansville
Internal Medicine

Leo Eloesser, M.D.: Eulogy for a Free Spirit

A biography by Harris B Shumacker, Jr., M.D. Copyright 1982, Philosophical Library, 200 W. 57th St., New York, N.Y. 10019. 483 pages, hardcover, $29.95.

Dr. Shumacker's magnificent illustrated biography of Leo Eloesser illustrates perfectly and in intimate detail the appellation, "free spirit," which he applies to him. Eloesser, in his almost 100 years of busy life, was an examplar for "fancy-free"—a man who did everything he wanted to and, at the same time, became a highly trained surgeon with an extensive interest in all of medicine and especially preventive medicine.

Dr. Eloesser, in later life, summed it all up in what might be used as his epitaph—"Well, take it all in all, I've done what I want. And perhaps not harmed too many people by doing it."

Dr. Eloesser was an accomplished musician, both for his extraordinary skill with several instruments and for his lifelong attendance at the best musical concerts worldwide. He was personally acquainted with scores of the world's best concert musicians.

He conducted a busy private practice in surgical diseases of the chest in San Francisco and was a foremost researcher in this field. Born in California and medically educated in Germany, he opened his practice in San Francisco in 1909, an endeavor to continue, although interrupted by frequent overseas trips, until he went to China in 1945.

In the early days of WWI he was an army surgeon in Austria and Germany, returning to this country when the United States became involved.

Participation in the medical services of the Loyalist forces in the Spanish Civil War proved to be the basis of doubts concerning his political motives. Disapproval of him by the U.S. Government was to follow him all the rest of his life. He missed World War II.

His penchant for world travel, and his deeply ingrained habit of combining medical teaching, medical consultation and the active practice of music took him to Russia, to Mexico and later to China when it was saturated with war in the 1940s.

He was distinguished by having learned the language of almost every country he visited. He loved people to a degree not enjoyed by most others. His ability and tenacity in working under abominable conditions and with little help and almost no medical supplies are remarkable. Other persons would have resigned and hurried home in such conditions in which he toiled in Spain, Russia and China.

His last years were spent happily in Mexico where he was surrounded by friends and new acquaintances.

The book is remarkable for its ability, more so than the usual biography, to give the reader the impression that a personal friendship had been created during the reading. When the volume is tenderly returned to an honored resting place on the shelf one feels as though he has accompanied Leo Eloesser on his great adventures.

Frank B. Ramsey, M.D.
Indianapolis
General Surgery

ISI Press announces a new edition of a most successful book, *How to Write and Publish a Scientific Paper*, by Robert A. Day. The first edition sales reached the 60,000-plus mark. The book combines a lot of practical advice with warm wit and readability. The *NEJM* describes Day's style as "deliciously witty and informative." The new edition in paperbound is $11.95, clothbound $17.95.



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NEWS NOTES

ISMA Student Reps Named

Six Indiana University School of Medicine students have been appointed as student liaison representatives to various ISMA commissions. They are:

Kenneth W. Angermeier, Ad Hoc Commission on Sports Medicine; Pamela Eva Fadul, Physician Impairment; Tim Troyer, Medical Services; Tom Whiteman, Legislation; Lynn Listenberger, Public Relations; and Karen Ottenweller, Medical Education.

Gordon Hughes is the ISMA student delegate and Steve Foley is the alternate student delegate.

TEFRA and Medicare

Dun and Bradstreet studies of Medicare reimbursements for several hospitals show that, under the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), some hospitals will face major losses.

One hospital in the study, with 400 beds, will have a loss of over $1 million in Medicare reimbursements. The study involved six hospitals, each one representing one of six regions.

TEFRA was designed as a temporary measure to control Medicare expenditures. It is to be replaced later by another plan to be devised by Congressional action.



AMERICAN PHYSICIANS LIFE—Dr. Arvine Popplewell, Indianapolis, chairman of the board of the Indiana Physicians Life Insurance Company (IPLIC), presides over a meeting during which the new American Physicians Life (APL) was formed. Physician-owned insurance companies in Kentucky and Michigan merged this spring with IPLIC and the parent company, Physicians Insurance Company of Ohio (PICO), to form APL.

—PHOTO BY BOB SULLIVAN

Ectopic Pregnancies

The incidence of ectopic pregnancies more than doubled between 1970 and 1978—from 4.5 per 1,000 to 9.4. However, death rates are down by 75%. Pelvic inflammatory disease seems to be the cause. The same situation involves other countries. A full report appears in the April 1 issue of *JAMA*.

Ind. Distributor Expands

Anesthesia Respiratory Technology, with headquarters in Noblesville, announces opening of its West Coast Distribution Center in Scottsdale, Ariz. Designing, assembling and packaging disposable anesthesia and respiratory products will continue at Noblesville for shipment to the West Coast center.

Court Rules Against HHS Handicapped Infants Rule

Federal District Judge Gesell in Washington, D.C. has ruled that the Department of Health and Human Services acted improperly in promulgating its rule regarding discrimination against handicapped infants, and has ordered DHHS to withdraw its rule. DHHS has announced that it intends to appeal the ruling.

The requirements imposed by DHHS were published in the May 1983 issue of THE JOURNAL, page 350.

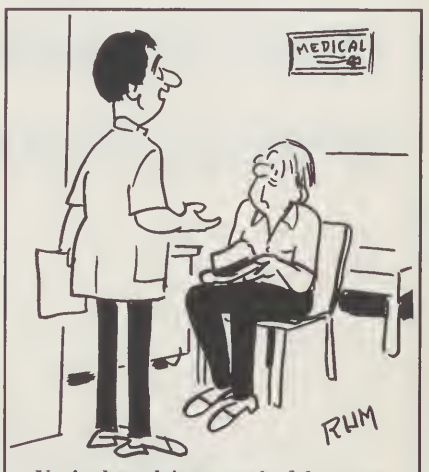
Pamphlet on Smoking

The U.S. Public Health Service has just released a new publication, "Why People Smoke Cigarettes." The information is useful to those involved in public health. It terms smoking this country's most widespread example of drug dependence, one of the most serious in the United States, and the one most responsible for illness and death.

Single copies and limited quantities of the pamphlet are available free by writing "Why People Smoke," Rockville, Md. 20857.



Why not reduce and save energy at the same time? Buy a small compact and make yourself fit it.



You've been doing enough of the wrong things to give you the right problem to see me again next week.

NEWS NOTES

Here and There . . .

. . . **Dr. Alan T. Marty**, an Evansville cardiovascular surgeon, has been elected to the editorial board of *Chest*, for which he will also serve as book review editor. He is already on the editorial boards of *Critical Care Medicine* and THE JOURNAL of the ISMA.

. . . **Dr. Frederick C. Poehler** of LaFontaine is one of 10 Hoosiers who have won *The Indianapolis Star's* 1983 Indiana Jefferson Awards for voluntarism and public service.

. . . **Dr. Patrick J. V. Corcoran** of Evansville was recently honored by the ISMA Board of Trustees for his work with the AMA Council on Medical Education. The Board resolved, "That Dr. Corcoran be commended for his long years of service, his current year as chairman of the Council, and for influencing appointment of a great number of ISMA members and faculty of Indiana University to the AMA hierarchy."

. . . **Dr. Samir I. Zabaneh** of Hammond has been named a fellow of the American College of Surgeons and the International College of Surgeons.

. . . **Dr. Randall A. Lee** of Martinsville was one of the speakers at a recent heart seminar in Mooresville, sponsored by the Morgan County Unit, American Heart Assn.

. . . **Dr. Helen G. Czenkusch** of Speedway, first woman president of the Marion County Medical Society, has received a Women of Distinction Award from the Alpha Xi Delta Sorority, of which she is an alumna.

. . . **Dr. Byron M. Holm, Jr.** of Plymouth recently spoke to the Marshall County Affiliate of the American Diabetes Assn.

. . . **Dr. Lowell H. Steen** of Hammond, former chairman of the AMA Board of Trustees, will receive the Indiana University Distinguished Alumni Service Award at the Alumni Association's annual meeting.

. . . **Dr. Robert E. Rogers** has been named chief of Ob/Gyn at Wishard Memorial Hospital, Indianapolis.

. . . **Dr. William D. Ragan** of Indianapolis, chairman of the Indiana State Maternal Mortality Committee, is actively supporting the committee's research program by conducting clinical investigations throughout the state.

. . . **Dr. H. Marshall Trusler** of Indianapolis has been named medical director of Key Health Plan, the HMO of Blue Cross-Blue Shield.

. . . **Dr. Frank W. Countryman** of Indianapolis and a local attorney discussed "Insanity as a Defense" at a recent Sertoma Club meeting in Indianapolis.

. . . **Dr. E. Henry (Ned) Lamkin, Jr.** of Indianapolis, a state representative from 1967 to 1982, is the 1983 recipient of the Otis R. Bowen Physician Community Service Award.

. . . **Dr. Sheldon J. Friedman**, a Noblesville cardiologist, discussed heart disease during the April session of the Riverview Hospital Discussion Series.

. . . The late **Dr. Robert L. Harris** of Evansville has been posthumously honored by the Vanderburgh County Medical Society as recipient of its Physician Community Service Award. Dr. Harris, who died in September 1982, was cited for his leadership in formation of the Ohio Valley Hospice.

. . . **Dr. James W. Pickerel**, a Terre Haute ophthalmologist, discussed "Diabetes and the Eye" during an April meeting of the Clay County Chapter, American Diabetes Assn.

. . . **Dr. William J. Tierney** of Anderson has been elected to the Board of Directors of the United Cancer Council, Indianapolis.

. . . **Dr. Frank P. Lloyd**, president and chief executive officer of Methodist Hospital, Indianapolis, discussed "Health Care: Where Is It Going?" at an April meeting of the Indianapolis Kiwanis Club.

. . . **Dr. Robert J. Porte** of Hammond served as chairman of the 1983 Lake Area Health Fair, held in April.

. . . **Dr. Robert M. Sweeney** of South Bend, chairman of the Indiana Chapter, American Academy of Pediatrics, discussed "Immunization and Infant Care" during an April community health program at the El Centro de Salud clinic.

. . . **Dr. Gene R. Hay** of Michigan City discussed coronary artery disease at a recent meeting of the Community Mended Hearts Club.

. . . **Dr. Marc A. Levin** of Hammond has been certified by the American Board of Neurological Surgery.

. . . **Dr. Donald A. Dian** of Bluffton discussed "Your Child and Handling Death" during a March meeting of Parent Cooperative Preschool parents in Bluffton.

. . . **Dr. David J. Scruby** of Zionsville has joined Eli Lilly and Company as a staff physician in the industrial medicine department.

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Here and There . . .

. . . **Dr. Donald J. Kerner** of Indianapolis discussed "The Physician's Role in Cost Containment" during a March meeting of the Central Indiana Business Group on Health.

. . . **Dr. Mark I. Singer** of Indianapolis lectured at the M.D. Anderson Hospital, Texas Tumor Institute, in February, discussing the Singer-Blom surgical technique for voice restoration after laryngectomy.

. . . **Dr. Virginia M. Wagner** has been chosen runner-up in the Indianapolis Woman of the Year for 1982 competition sponsored by *The Indianapolis Star*; earlier, she was chosen 1982 Professional Woman of the Year by a majority of women's service clubs in Indianapolis.

. . . **Dr. Thomas E. Woerner** of Indianapolis, president of the Indiana Heart Association, discussed the psychological aspects of heart problems at a recent meeting of the Tipton County Heart Club.

. . . **Dr. James P. Sidell** of New Haven has become president of the medical staff at Parkview Memorial Hospital, Fort Wayne; **Dr. Thomas J. Hicks** is president-elect, and **Dr. Richard E. Tielker** is secretary-treasurer.

. . . **Dr. Charles Baran**, a South Bend neurological surgeon, discussed phantom limb sensation versus limb pain at an April meeting in South Bend of the Michiana Amputee Support Group.

. . . **Dr. Gerald R. Bougher** and **Dr. Paul T. Maier** of Lafayette discussed pacemakers at an April meeting of pacemaker wearers sponsored by Lafayette Home Hospital.

. . . **Dr. Melvin C. Wright**, an Indianapolis surgeon, recently spoke to fifth grade students at a local school and demonstrated surgical techniques and procedures for them.

'How-To' Booklets Popular

Roche announces the delivery of over four million of its "HOW-TO" booklets to health care professionals. The recent offer to send these booklets to consumers has resulted in more than 20,000 requests. The booklets have been cited by the U.S. Department of Commerce for the use of plain, concise and easily understood language.

Health Care Study Results

Dr. Harry Schwartz, the well known health economist from Columbia University, has completed a study to evaluate the standard arguments advanced in favor of national health insurance.

He finds that people with family incomes below $5,000 see doctors more often than any other income group and also spend more days in the hospital. They spend twice as many days in the hospital as do people with family incomes of $25,000 or more. This negates the claim that low-income people are denied health care.

The study has been published by the National Center for Policy Analysis under the title of: "National Health Insurance: A Pragmatic Perspective." A free copy of the study may be obtained by writing to the National Center for Policy Analysis, 413 Carillon Plaza, 13601 Preston Road, Dallas, Tex. 75240.

Diet and Diabetes

Upjohn research has discovered that a low-fat diet in infant Chinese hamsters will prevent diabetes in a strain of hamsters genetically programmed to develop the disease. The animals maintained on the low-fat diet never develop diabetes and even those who are fed the diet for a short time experience a delayed onset of diabetes and have a less severe disease.

Help for Leukemia Society

Sons of the American Legion, Detachment of Indiana, has named the Leukemia Society of America as its Charity Project for 1983. The SAL will conduct various fund-raising events to support research, patient aid, community services and public and professional education activities of the Leukemia Society.

Indiana's Dietitian-Diabetes Referral Network

There is now a way for your patients with diabetes to have continuity of nutritional care with the help of a Registered Dietitian, but without the necessity of being admitted to the hospital.

The Indiana Dietetic Association and the Diabetes Research and Training Center have identified dietitians with a special interest and expertise in diabetic nutritional education. A list of such dietitians is available for referral by physicians from the phone numbers listed below. The existence of this referral network should help the physicians in:

- Outpatient diet motivation and advice that could encourage the person to reach weight goals and maintain acceptable levels of blood glucose control.
- Diet modifications that may be needed because of lifestyle or activity changes, or because of concurrent medical situations (pregnancy, hypertension, etc.).

For names of Registered Dietitians in your county area who accept referrals, or for further information, contact Beth Gatto (IDA, (317) 924-8919), Madelyn Wheeler (DRTC, (317) 630-6215), or one of the five American Diabetes Association regional offices in Indiana:

Central: Indianapolis (317) 356-7208
No. Central: Anderson (317) 378-0555
North East: Ft. Wayne (219) 482-9426
North West: Hobart (219) 769-3650
South West: Terre Haute (812) 232-0361

NEWS NOTES

Organ Donor Hotline

The nation's first toll-free telephone number for physicians, nurses and other health professionals with questions about a potential organ donor has been based at the University of Pittsburgh. The number will serve as a source of urgently needed donor and procurement information.

The number, restricted to physicians, nurses and other health professionals, is 800-24-DONOR. It is in operation 24 hours a day, 365 days a year. The number is a service of the North American Transplant Coordinators Organization (NATCO) and is part of their attempts to expand efforts to match available organs with people awaiting a transplant. (NATCO is the professional association of individuals responsible for organ procurement in hospitals.)

There are 110 organ procurement centers in the United States. The new telephone number provides information on the organ needs of the major transplant institutions in this country and Canada. It includes information on kidneys, hearts, livers, lungs, pancreases, and heart/lungs.

More U.S. Physicians

The number of U.S. physicians is increasing faster than the population in general. Between 1976 and 1981, the number of physicians rose 18.5% while the general population rose 5.4%.

As a result, the population-to-physician ratio has decreased 11% since 1976 and 2.6% from 1980 to 1981, according to the AMA Physician Masterfile. At the end of 1981 there were 485,123 physicians, 230.5 million people, and an average of 210.4 physicians for every 100,000 population.

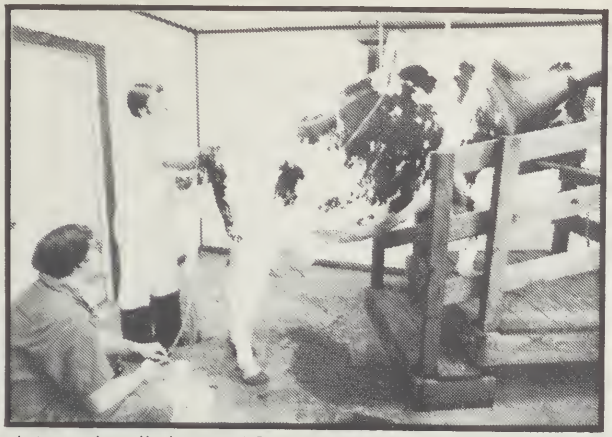
CME A-V Programs

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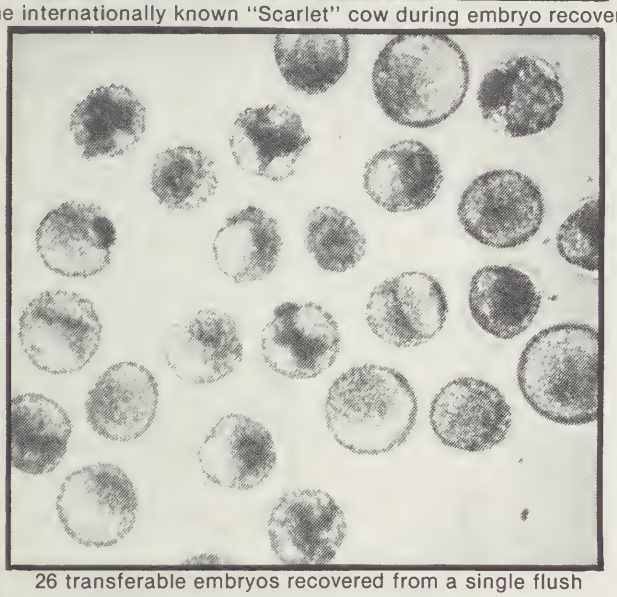
Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Adler, Alan J., Kokomo
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Belanger, Robert A., Fort Wayne
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Black, Kenneth A., Portage
Black, M. James, Brownsburg
Blix, Fred M., Indianapolis
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Bown, Otis R., Indianapolis
Brechtl, Harvey J., South Bend
Choi, Han C., Pendleton
Cohen, Irving, Plainfield
Conrad, Henry W., Lawrenceburg
Conroy, Michael D., South Bend
Darbro, David A., Indianapolis
Dolezal, Bernard J., South Bend
Estacio, Romeo Y., Munster
Ferguson, Philip C., Wabash
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Huber, Richard G., Bedford
Irwin, Gerald P., Alexandria
Jehanyar, Mohamed A., Monticello
Jimenez, Feliciano F., Munster
Jones, Thomas A., Indianapolis
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Disspelling Some Myths . . .

CONTINUED FROM PAGE 372

and more than we spend on defense. By way of illustration, in 1950 Social Security accounted for only 1% of all federal spending. The cost of Social Security has gone up so dramatically because many more people are receiving benefits, more benefits are being provided, and the level of benefits is indexed to keep up with inflation. When the Consumer Price Index rises, so do Social Security benefits.

Now let's take a look at where the problems are. There are actually four major problems and each of them must be addressed.

The first problem, of course, is that most people do not understand how the program actually works. They have been led to believe that Social Security is a funded insurance program and when they receive benefits, they are really just getting back the money they have contributed. But we know that this is not the case—that the Social Security taxes collected from workers and their employers are paid out almost immediately to those who are receiving benefits.

Take, for example, someone who has paid the maximum amount of Social Security taxes, who retired at the end of 1981 at age 65, and who has a spouse who is also 65. They currently receive an annual Social Security retirement benefit of $14,206. The maximum amount that any individual paid into Social Security from the beginning of the program in 1937 through 1981 was $14,767.00. This is a good illustration of how quickly an individual's contribution to the program is recovered and the magnitude of the problem.

The second major problem is the public's lack of confidence in the Social Security system. It's at an all-time low. People see the headlines about the danger that Social Security will run out of money, and they are worried. Three of four persons between the ages of 25 and 44 say they have little or no confidence that the program will be able to pay them benefits when they are ready to retire. Likewise, many older people who are already receiving benefits are terrified and afraid that their monthly checks will be cut.

No one in Washington and no responsible group has ever recommended the kinds of cutbacks that many of the elderly fear. We must therefore remove their fears and restore their confidence in the program. The public's support will be needed to enact the kinds of changes that are still necessary.

Short-term difficulties in financing Social Security are the major problems. There are three Social Security trust funds. The largest of the three—the one that pays retirement benefits—is expected to run out of money by the middle of next year. The primary reason is obvious—retirement benefits paid out have increased more than the amount of Social Security taxes collected. Another short-term problem is high unemployment, which further reduces the amount of money collected in Social Security taxes.

The fourth major problem is long-term financing. When the "baby boom" generation retires, there will be many more people receiving benefits and proportionately fewer workers paying taxes. Retired people will be living longer also. Unless further changes are made in the Social Security program, our children and our grandchildren will face Social Security taxes that are two or three times the rate we are paying today.

In summary, the major myths about Social Security are:

- The program is funded.
- Recipients have paid for their own benefits.
- Solutions require reductions in benefits.
- Rising general revenues are a painless solution.

These myths exist because most people do not really understand how the program works, what the problems are, or what the solutions involve.

These myths have been used to build support for the program. Social Security has been described with words like "insurance," "trust funds," "accounts" and "contributions." Older people have been led to believe that they paid for—and thus "earned"—their benefits.

The solutions to the problems of Social Security don't require reductions in present benefits. And using general tax revenues, as some people advocate, isn't a painless solution. All you have to do is listen to the debate over the current budget to realize that there aren't any general revenues available for this purpose.

Increasing the federal deficit still more would only create more inflation. In the end, using general tax revenues would weaken the relationship between benefits and the way they're financed—and lead to still higher taxes.

However, the situation is looking better. It is gratifying indeed to note the swiftness with which Congress, earlier this year, enacted most of the recommendations of President Reagan's bipartisan National Commission on Social Security Reform. Despite the fact that one of the commission's primary objectives was to remove the emotionalism that surrounds Social Security so that reasonable people working together can reach agreement on reasonable solutions, a consensus on the commission's recommendations for rescuing the system was reached only at the eleventh hour. Hopefully, this bodes well for the development of further recommendations for reforms that both political parties will support.

CME QUIZ
Popliteal Cysts

CONTINUED FROM PAGES 379-381

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Div. of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. The presentation of popliteal cyst in the calf may mimic the common physical findings of:
   a. thrombophlebitis
   b. calf hematoma
   c. popliteal artery aneurysm
   d. all the above
   e. none of the above

2. The least likely finding to be associated with a ruptured popliteal cyst is:
   a. a positive Homans' sign
   b. calf swelling and discoloration
   c. cord-like structure in the calf
   d. normal exam of the anterior knee joint
   e. pain in the calf

3. The most commonly associated arthritis with popliteal cysts listed below is:
   a. osteoarthritis
   b. gouty arthritis
   c. rheumatoid arthritis
   d. menisceal tears

4. Popliteal cysts:
   a. may have higher pressures than found in the anterior knee
   b. usually freely communicate both ways with the knee joint and have equal pressures
   c. commonly dissect into the thigh
   d. most commonly arise from the popliteus bursa

5. The most appropriate therapy of a suspected ruptured popliteal cyst is:
   a. anticoagulation until venograms can be done
   b. bedrest, calf elevation and anti-inflammatory drugs
   c. large doses of prednisone
   d. elastic wrap of the calf

6. The most reliable study to demonstrate a ruptured popliteal cyst is:
   a. arthrography of the knee
   b. ultrasonography of the calf
   c. venography of the calf
   d. radiofibrinogen studies of the leg

7. A popliteal cyst extending below the level of the popliteus bursa is a:
   a. "ruptured" popliteal cyst
   b. "popliteus" cyst
   c. "dissected" popliteal cyst
   d. "chronic" popliteal cyst

8. Synovial fluid analysis of the knee in patients with popliteal cysts:
   a. may indicate the amount of synovial inflammation
   b. help exclude active infection
   c. demonstrate gout crystals
   d. all of the above
   e. a and b only

9. Long-term management of popliteal cysts most often includes:
   a. surgical removal of the cyst posteriorly
   b. quadriceps exercises
   c. control of anterior knee synovitis
   d. oral anticoagulation

10. Anticoagulation of a patient with a ruptured popliteal cyst:
    a. is usually ineffective
    b. may lead to hematoma and bleeding complications
    c. is commonly done because of incorrect diagnosis
    d. all the above

MAY CME QUIZ Answers

Following are the answers to the CME quiz that appeared in the May 1983 issue of THE JOURNAL: "Nephrolithias: A Controllable Disease," by James E. Lingeman, M.D.

1. e
2. b
3. c
4. b
5. d
6. c
7. a
8. c
9. d
10. c

Answer sheet for Quiz: (Popliteal Cysts . . .)

1. a b c d e	**6. a b c d**
2. a b c d e	**7. a b c d**
3. a b c d	**8. a b c d e**
4. a b c d	**9. a b c d**
5. a b c d	**10. a b c d**

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

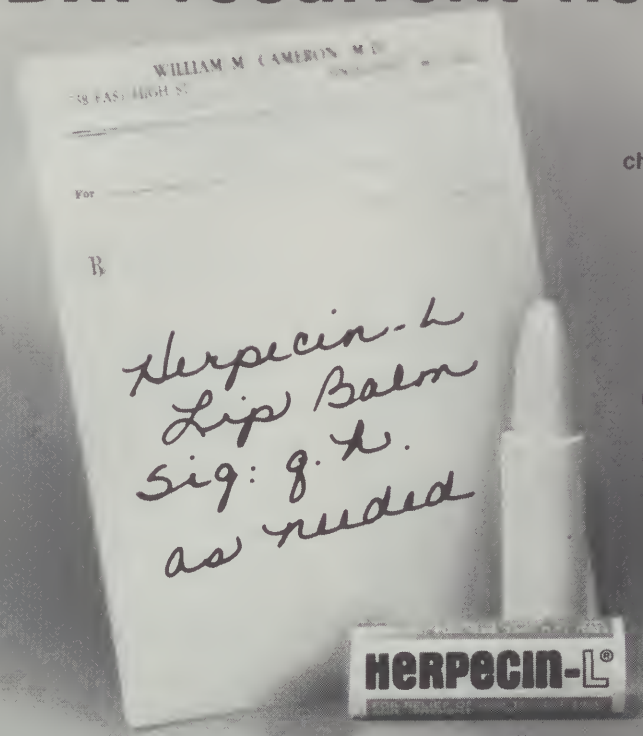
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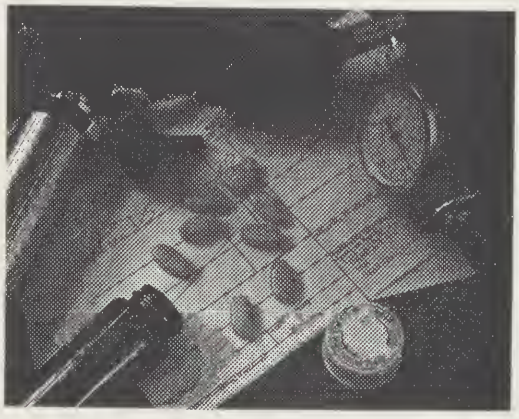
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OBITUARIES

George A. Held, M.D.

Dr. Held, 74, a retired Santa Claus physician, died April 2.

He was a 1933 graduate of Indiana University School of Medicine. He moved to Venice, Fla., after his retirement.

Paul E. Haley, M.D.

Dr. Haley, 82, a retired South Bend general surgeon, died April 13 at St. Joseph's Medical Center, South Bend.

He earned the M.D. degree in 1928 from the University of Illinois.

Dr. Haley was a former president of the St. Joseph County Medical Society. He also was a former president of the South Bend Board of Public Health and was a former deputy coroner.

A. V. Gatmaitan, M.D.

Dr. Gatmaitan, 62, a Knightstown physician, died April 24 at Henry County Hospital, New Castle.

He was a 1944 graduate of the College of Medicine, University of the Philippines, Manila.

Dr. Gatmaitan, who began practicing in Knightstown in 1973, was a team physician for the Philippines Olympic team in 1948.

Herbert L. Sedam, M.D.

Dr. Sedam, 76, a retired Indianapolis surgeon, died April 15 at Winona Memorial Hospital, Indianapolis.

He was a 1932 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Sedam was a member of the American College of Surgeons and the American Society of Abdominal Surgeons.

Clarence E. Reich, M.D.

Dr. Reich, 71, an Evansville physician, died March 25 at his home.

He was a 1936 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Reich was a member of the American Academy of Family Physicians. He was a former president of the medical staff, Deaconess Hospital, and was a member of the city-county health board for many years.

George G. Lenk, M.D.

Dr. Lenk, 75, a Fort Wayne physician, died April 1 at St. Joseph's Hospital, Fort Wayne.

He was a 1937 graduate of the St. Louis University School of Medicine and was an Army veteran of World War II.

Dr. Lenk specialized in industrial medicine and served several Fort Wayne area industries over the years, including International Harvester. He was a member of the Industrial Medical Association.

Robert T. Allen, M.D.

Dr. Allen, 69, a Richmond ophthalmologist, died Jan. 21 in Whispering Pines, N.C., where he had retired two years ago.

He was a 1944 graduate of Indiana University School of Medicine and served in the Army Air Corps from 1945-47.

Dr. Allen was certified by the American Board of Ophthalmology and was a member of the American Association of Ophthalmology.

John E. Luzadder, M.D.

Dr. Luzadder, 74, a retired Michigan City physician, died April 20 at Porter Memorial Hospital, Valparaiso.

He was a 1931 graduate of Indiana University School of Medicine. He retired in 1970.

Dr. Luzadder was a member of the American Academy of Family Physicians and the ISMA Fifty Year Club.

Paul N. Harris, M.D.

Dr. Harris, 76, former research associate at Eli Lilly and Company, Indianapolis, died April 24 at St. Vincent Hospital.

He was a 1930 graduate of Vanderbilt University School of Medicine and began working at Lilly in 1937. He retired from the toxicology division in 1971.

Dr. Harris, nationally known for his work in pathology, was an assistant professor of pathology at Indiana University School of Medicine. His professional memberships included the International Academy of Pathology, College of American Pathologists, American Society of Clinical Pathologists and the Indiana Academy of Science.

Wemple Dodds, M.D.

Dr. Dodds, 82, a retired Crawfordsville radiologist, died April 17 at his home.

He was a 1928 graduate of Indiana University School of Medicine.

Dr. Dodds, one of the founders of Blue Cross and Blue Shield of Indiana, retired as director of radiology at Culver Hospital in 1977. He was a former Ninth District trustee and served as ISMA chairman of the Board of Trustees in 1952.

He was a member of the American College of Radiology, American Society of Clinical Pathologists, and the Radiological Society of North America. He was certified by the American Board of Radiology.

Alfred E. Neale, M.D.

Dr. Neale, 61, a retired Anderson obstetrician and gynecologist, died April 11 at St. John's Medical Center, Anderson.

He was a 1945 graduate of Case Western Reserve University School of Medicine, Cleveland. He retired last year.

Dr. Neale was a member of the American College of Obstetrics and Gynecology and the American Society of Abdominal Surgeons.

Robert A. Schumaker, M.D.

Dr. Schumaker, 74, Vigo County health officer since 1974, died April 5 at St. Vincent Hospital, Indianapolis.

He was a 1942 graduate of Indiana University School of Medicine.

Dr. Schumaker had practiced in Terre Haute since 1955, when he completed a two-year tour with the Air Force as a flight surgeon. He was a member of the American Academy of Family Physicians and the Vigo County Academy of Medicine.

Edward M. Micon, M.D.

Dr. Micon, 31, a Greenwood physician, died April 20 at St. Vincent Hospital, Indianapolis.

He was a 1977 graduate of Indiana University School of Medicine. He had practiced with the Greenwood Medical Group.

Dr. Micon, a member of the American Academy of Family Physicians, was certified by the American Board of Family Practice.



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The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

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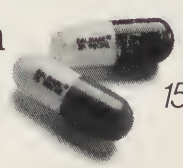
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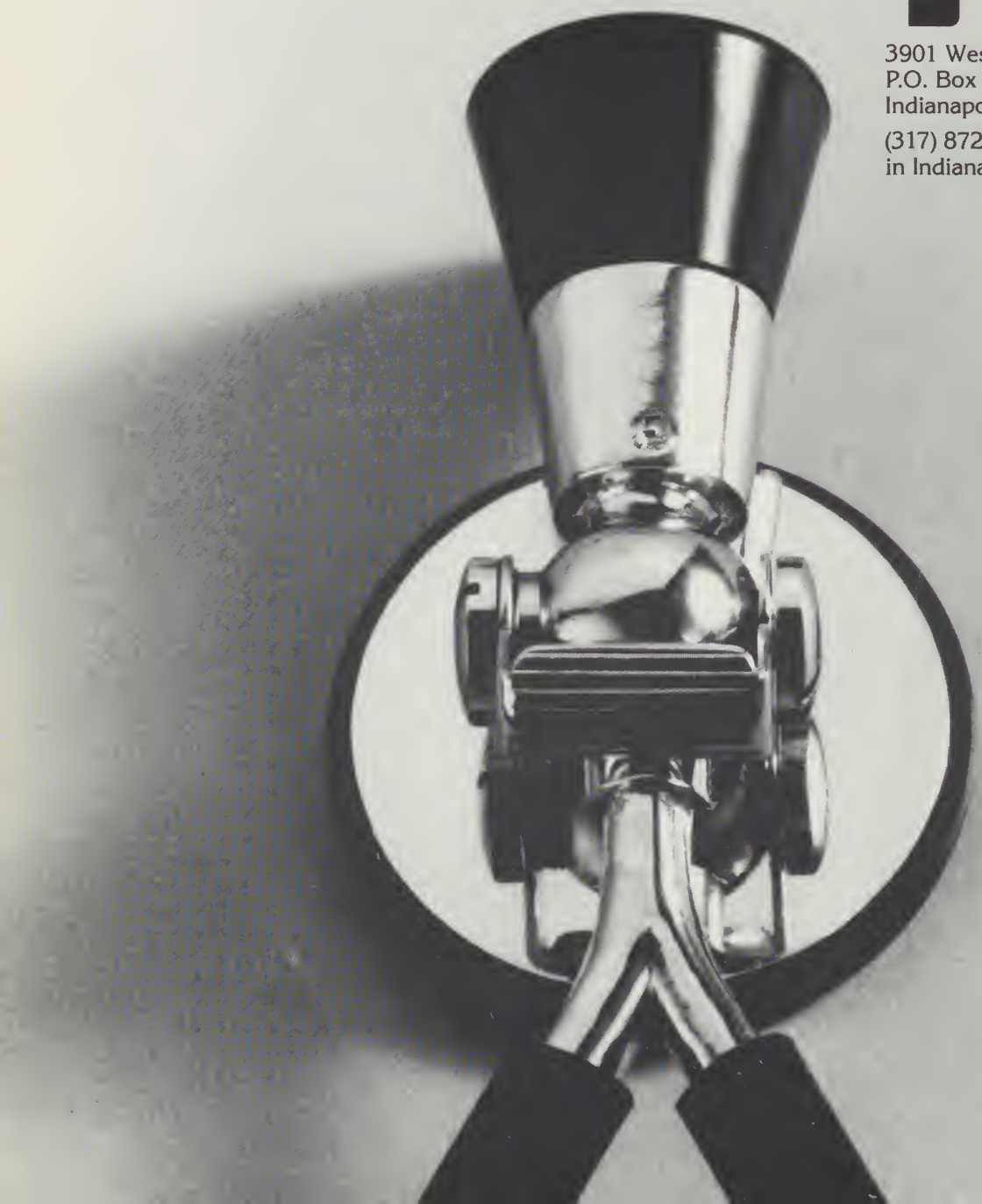
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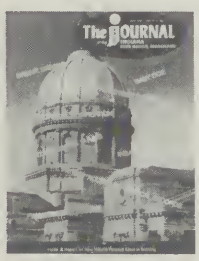
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As a result of this year's session of the General Assembly, a variety of legislation affecting the medical community emanated from the Indiana State Capitol Building. For a summary of health-related measures signed into law, see page 466.

—COVER BY FRED KINGHORN

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CHARLES A. BONSETT, M.D., Indianapolis

DR. ALBERT E. STERNE has been mentioned before on this page. He was such an interesting person that he could be the subject of a number of articles. His name is perhaps best known, at the present time, in connection with the endowed chair of psychiatry at the Indiana University School of Medicine, which bears his name, and which is currently occupied by Dr. Hugh Hendrie. Ten years ago, in November 1973, the Norways Foundation, Inc., presented a gift of securities, then valued at approximately $345,000, to the I.U. Foundation. The income from this gift, in addition to supporting the Albert Eugene Sterne Professor of Psychiatry and Clinical Research, provides for training stipends in psychiatry and for visiting professors.



Dr. Sterne



Norways Sanitarium, Indianapolis

Dr. Sterne was an unusually well educated physician for his time. He had had the good fortune to have been born to a well-to-do family, and to have inherited a brilliant mind. He was born in Cincinnati, Ohio, April 28, 1866, and received his A.B. *cum laude* from Hartford University in 1887, and the M.D. *magna cum laude* from the University of Berlin in 1891. (The German language had been learned at home.) He then became *interne* in the Charity Hospital of Berlin in the division of nervous diseases. Following this, he studied in London and Paris, finally returning to America, to Indianapolis, to open an office for the practice of medicine in 1893.

In 1898 he bought the mansion of Stoughton Fletcher on East Tenth Street in Indianapolis, and converted it into a hospital (Norways Sanitarium) for nervous and mental disease. It was here that x-ray was used for the first time in Indiana (1898), and also where shock therapy was first used (insulin shock in 1937, Metrazol shock in 1938, and electric shock in 1940). Sterne was the state's first neurosurgeon, his professional ads in the turn-of-the-century medical journals showing that his practice was limited to "nervous and mental diseases, and surgery of the brain and spinal cord." He commenced this activity in 1906, and the newspaper articles of the period indicate that a considerable amount of surgery was done, although the exact nature of this is not clarified.

When automobiles became available, Dr. Sterne was among the first to trade in his horse and buggy. The newspapers of the day were quite gossipy about automobile owners. Dr. Sterne had at least two cars at any given time. The 1907 papers report that he bought a new Marmon, and later in the year that his Waverly Electric had been stolen.

The automobile was a source of tragedy for him, however. One day in 1911, while driving north on the West Drive of Woodruff Place, just a short distance from his hospital, a 14-year-old boy ran in front of his car and was mortally injured with a fractured skull. Dr. Sterne rushed the lad to his hospital and to the surgery, but to no avail. Sterne was not held responsible for the accident, but as can well be imagined, it had a most depressing effect upon him.

Dr. Sterne was one of the original four teachers in the Old Pathology Building when that structure was opened to the various medical schools in 1896. Sterne represented the Central College of Physicians and Surgeons. When this school, the Medical College of Indiana, and the Fort Wayne Medical College united to form a state medical college in 1905, the hostilities that existed among these highly competitive proprietary schools disappeared, only to have a more acrimonius situation develop between Purdue, which accepted the proprietary schools, and Indiana University, which was attempting to develop a medical school in Bloomington.

The sympathy of most physicians at that time was with Purdue, to which most of the faculties of the three schools pledged their loyalty and services. Among these was Dr. Sterne, who at that time was professor and chairman of the Department of Nervous and Mental Diseases at the Central College of Physicians and Surgeons. His assistant, Dr. Frank Hutchins, had graduated from the Medical College of Indiana, and had gained his experience with nervous and mental disease in the State Hospital System. Dr. Sterne had no equal at that time in terms of education and experience. Dr. Hutchins, however, had one element in his favor. He was one of a handful of men who felt from the beginning that I.U. should be the basis of the combined medical schools. When this ultimately became a reality in 1908, it was Dr. Hutchins, rather than Dr. Sterne, who became chairman of the department, a position he held until his retirement in 1937.

Dr. Sterne continued to teach at the Old Pathology Building, and at City Hospital (now Wishard Memorial). Dr. Walter Bruetsch recalled that "he was the most colorful lecturer at the Saturday afternoon lectures in the auditorium of the Pathology Building. He had done postgraduate work in Paris with Dr. Marie . . . (Dr. Sterne was) a cultured gentleman with a broad knowledge. . ."

Dr. Sterne died over 50 years ago (June 30, 1931). His influence is still felt through the endowed chair named in his honor.

WHAT'S NEW?

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Abbott Laboratories has published a new monograph, "Status Report: Electronic Flow Control, An Emerging Technology." It presents an overview of EFC, examines its controversies, and discusses applications of EFC instruments in different areas of the hospital. Copies are available at no cost from Abbott.

Kingswood Laboratories announces MOI-STIR® , a clean tasting spray that relieves the discomfort of dry mouth. Radiation or surgical operation near salivary glands interfere with normal production of saliva. Some prescription drugs cause dry mouth. Old age, dentures, hemodialysis and Sjogren's Syndrome also cause dry mouth discomfort. MOI-STIR is a mixture of sorbitol, sodium carboxymethylcellulose, and electrolytes in water solution. It is dispensed in a spray container. It is a non-prescription product.

Abbott Laboratories announces a new Enteral Pump Set with Integral Container. It is designed for use with the Abbott/Shaw LifeCare family of electronic flow control pumps. The reservoir has a resealable large-mouthed closure for filling with nutritional fluids and for adding medication or dietary supplements. The set has a universal catheter adapter that is non-luer compatable to prevent accidental connection of an I.V. venipuncture device.



If the medication gives you a headache, don't consider it a side effect—just a fringe benefit.

Acuson is introducing an advanced ultrasound technology. Image resolution of the new systems is two to four times better than that produced by conventional systems. The improvement is said to be analagous to the improvement furnished by digital radiography over conventional x-ray or that of nuclear magnetic resonance as related to whole-body tomography.

Amko announces a new Hofmeister Endometrial Biopsy Curette, especially designed for endometrial sampling. It has finer and less traumatic teeth than the Novak curette and is available in 2, 3 or 4 mm sizes, all in stainless steel.

The Mentor Corporation has FDA approval for marketing a surgically implantable, inflatable penile prosthesis, useful in treating chronic male sexual impotence. The device is made of Bioflex™, a new polyurethane-based biocompatible material that is stronger than the silicone material used in other devices.

American Medical Systems announces a new artificial urinary sphincter that simplifies the surgical implantation and reduces the discomfort. The system consists of an inflatable device that is placed around the bladder neck. It is attached by a tube to a pump and an implanted reservoir. Suitable for use in men and women and in adults and children who suffer with incontinence.

Bristol-Myers announces clinical research that demonstrates caffeine combined with acetaminophen is more potent than acetaminophen alone. The amount of caffeine in a two-tablet dose observed in the study was 130 mg, roughly equal to one cup of strong coffee.

The 3M Company has a new bone staple system. The specially designed staple resists staple "back-out." The staple driver allows full insertion of the staple without removing the driver. May be used for fragment fixation, tendon and ligament repair, ligament repositioning, control of bone growth and surgical fusion of a joint and osteotomy.

Hoechst-Roussel has FDA approval to market Loprox® (ciclopirox olamine) Cream 1%, a new prescription medication for the topical treatment of fungal infections. It is recommended for athlete's foot, jock itch, ringworm of the body, pityriasis and cutaneous candidiasis. Adverse reactions have been very low. It produces early improvement and patient compliance is good.

Abbott Laboratories has a new nitroglycerin I.V. administration set, for use with the Abbott/Shaw LifeCare Pump System. The polyethylene tubing absorbs less than 10% of Nitroglycerin Injection, compared to the 40% to 80% absorption occurring with standard polyvinylchloride (PVC) tubing.

Hewlett-Packard has new upgrade kits to increase the imaging quality and capabilities for existing HP ultrasound systems. The upgrading involves the on-site addition of modular electronic components and circuitry and transducers.



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FUTURE FILE

Community Cancer Care

The Second National Seminar on Community Cancer Care will be held at the Hyatt Regency, Indianapolis, Sept. 16, 17 and 18. The purpose of the seminar is to encourage and give direction to the development of community initiated cancer care programs. Round table and open forum discussions will provide participants an opportunity to gain in-depth information.

For information, write Office of Continuing Medical Education, Methodist Hospital, 1604 N. Capitol Ave., Indianapolis 46202. A complete program will be furnished.

Pediatrics Symposium

The 11th annual Fall Pediatric Surgery/Pediatrics Symposium concerning the "Care of the Seriously Ill Child" will be sponsored by the I.U. School of Medicine at the Indianapolis Atkinson Hotel, Sept. 21 and 22. Numerous guest speakers from pediatric centers of the U.S. will participate.

For information, write Dr. Jay L. Grosfeld, Riley Hospital, 702 Barnhill Drive, Indianapolis 46223 or phone (317) 264-4681.

Jobs Conference

"Where Have All the Jobs Gone?" is the main theme of a meeting of the World Future Society Aug. 11 and 12 at the Hyatt Regency, Washington, D.C. The conference is titled "Working Now and in the Future." Experts and consultants will discuss modern technology, economic upheaval, disappearance of some of the standard jobs, and all related subjects, especially, "Will there be enough jobs to go around when the depression leaves?"

For further information, write to Ellen Dudley, World Future Society, 4916 St. Elmo Ave., Bethesda, Md. 20814.

Clinical Allergy

"Update on Clinical Allergy" will be conducted Oct. 28 at the Pacific Medical Center, San Franscisco. The fee is $120 ($50 for students and fellows in training). Application deadline is Oct. 20.

Write to Continuing Education, Pacific Medical Center, P.O. Box 7999, San Francisco 94120.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Geriatric Medicine

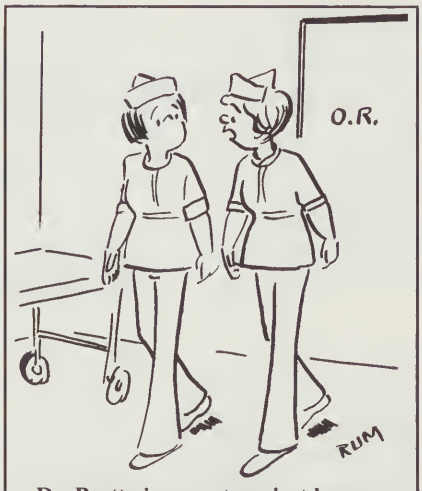
"Geriatric Medicine Today and Tomorrow" is the title of the Twelfth Annual Symposium to be held by the Western Division of the American Geriatrics Society, which will meet Oct. 28 and 29 at the Boswell Memorial Hospital, Sun City, Ariz. It is accredited, hour for hour, in Category 1, CME. Registration fee is $100.

Additional information is available from Marian Richardson, 13220 N. 105th Ave., Room 12, Sun City, Ariz. 85351.

Bowel Disease Symposium

"Inflammatory Bowel Disease: Newer Developments in Medical Treatment, Pathology, and Operative Management" is the title of a symposium for physicians to be presented Oct. 14 in Birmingham, Alabama. The fee is $40, which includes lunch.

Contact Mrs. Dena Metts, South Highlands Hospital, 1127 S. 12th St., Birmingham, Ala. 35205—(205) 250-7703.



Dr. Beatty is sore at me just because I was short one little sponge.

Medical Malpractice

The Southern Medical Association will conduct a "Medical Malpractice Seminar" at The Homestead, Hot Springs, Va., Aug. 26 to 28 and at the Hyatt Regency, Crystal City, Arlington, Va., Oct. 13 to 14. The fee for nonmembers is $275, members $220.

Contact Jeanette Stone, 2601 Highland Ave., P.O. Box 2446, Birmingham, Ala. 35201—(205) 323-4400.

Indiana University CME

"Cancer of the Colon" is the subject of a day-and-a-half course offered by Indiana University School of Medicine, Indianapolis, Aug. 5 and 6.

The course, designed for general surgeons, will cover diagnostic considerations in colon cancer and management of potentially pre-malignant lesions of the colon; preparation of the patient for colon surgery and the intraoperative management of malignant lesions of the colon; and special problems related to colon cancer with emphasis on management of the patient with local and systemic spread of the disease.

Contact I.U. School of Medicine, Div. of Continuing Medical Education, 1120 South Dr., Indianapolis 46223—(317) 264-8353.

Scientific Assembly

The Southern Medical Association will conduct its 77th Annual Scientific Assembly at the Hyatt Regency, Baltimore, Nov. 6 to 9. No fee for registration. Postgraduate courses $15 for members, $22.50 for nonmembers.

Address the Association at 2601 Highland Ave., P.O. Box 2446, Birmingham, Ala. 35201.

Nuclear Cardiology

Members of ISMA are invited to attend the 8th Annual Nuclear Cardiology Symposium to be held Oct. 12 to 15 in Milwaukee. The symposium will provide a comprehensive review of current techniques in nuclear cardiology.

Contact Sarah Aslakson, 465B Warf Bldg., 610 Walnut St., Madison, Wisc. 53705—(608) 263-2856.

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RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

New information from
Office of the Commissioner
Indiana State Board of Health
1330 W. Michigan St.
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

The Indiana State Board of Health (ISBH) through its Division of Drug Control is responsible for controlling the manufacture, distribution, sale and labeling of drugs, cosmetics, therapeutic devices, and hazardous household products. This is accomplished through periodic inspections of intrastate manufacturers and repackagers of drugs, cosmetics, and therapeutic devices; sampling raw materials and finished products for laboratory examination; disposing of dangerous, adulterated, or misbranded products; and the institution of appropriate regulatory action when necessary. Obviously, these program activities are closely joined to the support provided by the highly qualified analysts in the ISBH Food, Drug, and Dairy Laboratory.

Current state and federal statutes define "drugs" as (1) articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals or (2) articles (other than food) intended to affect the structure or any function of the body of man or other animals. Sometimes these definitions are difficult to establish. For instance, are the starch blockers a food or a drug; is DMSO a drug or a commercial solvent.

Much confusion also exists when the term "misbranding" is used. The popular context of the term is restricted to labeling. This interpretation is true when we consider the mandatory information on the label, such as prominence of information, listed ingredients, established names, directions for use, standards, expiration dates, recommended dosage, suitable warnings, etc. However, a product is deemed "misbranded" if its labeling is false or misleading in any particular, or if an advertisement is alleged to be false.

"Adulteration" is usually thought to mean the presence of any filthy, putrid, foreign, decomposed, poisonous, or deleterious substance. Actually, the term means much more; it includes deviation from the official standard for strength, quality, or purity as well as substitution.

It would be assumed from all of these laws, rules, acts, and regulations that the citizens of Indiana are enjoying consumer protections to the utmost. This assumption is highly erroneous, else we would never hear of adverse reactions, product recalls, and other calamities. No matter how efficient we believe our regulatory system to be, instances occur that are unpreventable, such as the recent Tylenol episode.

There are many tasks that are performed and a myriad of services that are provided by the Division of Drug Control which prove beneficial to the practicing physicians in Indiana and their patients.

Direct mailings are prepared and disseminated to all practicing physicians whenever there is a related public health problem, whether it is a drug, medical device, vaccine, cosmetic, or hazardous household product.

All complaints and requests for assistance are pursued properly and promptly, with adequate documentation of the findings supplied in writing. Frequently, tidbits of information are obtained from patients relative to quackery operations in their locale. Whether these charlatans are promoting "swamp Rabbit Milk" rich in vitamins J., U., M., and P., or the "Acu-Ring" for obesity, an investigation will be conducted. The present craze is diagnosis and therapy performed by pseudo-physicians possessing special talents in reflexology and iridology. When a quack convinces a diabetic patient to terminate the use of insulin and substitutes a natural health food item, there is cause for alarm. However, quackery cases hold a low priority with the prosecuting attorney who is inundated with cases involving murder, rape, and child molesting.

Another service being performed for Indiana physicians is the laboratory analysis and identification of drugs and related substances.

The enforcement of the Indiana Hazardous Household Product Act, another important responsibility of the Division of Drug Control, is the main program activity of the Hazardous Products Section. This statute requires that formulation data for all potentially hazardous chemical products sold at retail shall be filed with this office for Poison Control Center use by the general public and physicians. Some of the products subject to the provisions of the act are cleaners, polishes, detergents, paints and paint thinners, insecticides, fungicides and rodenticides, and auto accessory products, such as radiator and windshield antifreezes, carburetor cleaners, etc.

Through the registration program, it can also be determined that products are nonhazardous in nature. Lists of such products and their reason for exemption are provided to the main Poison Control Center for physicians use.

Indiana is the only state that administers a law which provides for the registration of the formulas of potentially hazardous household products; and through its administration, the State Board of Health has acquired data on more than 20,000 products.

This section also serves as coordinator for Indiana's Poison Control Center program. There are now 36 hospitals in the state that are listed as centers. The main center receives information from this office on a monthly basis.

The 1977 Indiana General Assembly passed a bill to establish a toll free, 24-hour-a-day poison information number for use by the general public and physicians when confronted with a poisoning emergency. The number has been established at the main poison center, i.e., William N. Wishard Memorial Hospital in Indianapolis. In the Indianapolis dialing area, the number is 630-7351. The toll-free statewide number is 1-800-382-9097.

Physicians in need of information or assistance regarding any situation related to drugs, cosmetics, therapeutic devices, or hazardous household products should contact Willis Roose, Indiana State Board of Health, Division of Drug Control, 317/633-0332.

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*Shaw S, Lieber CS: Nutrition and alcoholism, chap. 40, in *Modern Nutrition in Health and Disease*, edited by Goodhart RS, Shils ME; Philadelphia, Lea & Febiger, 1980, pp. 1220, 1237.

Please see summary of product information on reverse page.

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The Search for Curable Forms of Hypertension: Who, When and How

MYRON H. WEINBERGER, M.D.
Indianapolis

As an organization accredited for continuing medical education, the Indiana University School of Medicine certifies that this CME activity meets the criteria for one credit hour in Category 1 for the Physician's Recognition Award of the American Medical Association, provided it is used and completed as designated.

To obtain Category 1 credit for this month's article, complete the quiz on page 493.

THE DEVELOPMENT and widespread availability of new screening, diagnostic and therapeutic approaches for the detection and effective treatment of several secondary forms of hypertension has stimulated renewed interest in identifying such patients. However, the explosion of new information and techniques for these purposes has created a great deal of confusion in the minds of physicians.

Which of the hypertensive patients encountered in office practice are appropriate candidates for such procedures, how should one perform the screening and diagnostic tests and, finally, what is the best treatment for each of these forms of potentially curable hypertension? This article will attempt to review the current status of each aspect of this problem, providing a simplified scheme for the physician who wishes to pursue the search for curable forms of hypertension.

Several forms of hypertension can be cured, if identified before extensive systemic vascular disease occurs. While the incidence of each of these forms of identifiable hypertension is difficult to discern in the general population, there is sufficient information to indicate their relative frequency.

The most common form of secondary hypertension, which also is the easiest to identify and to treat, is that due to estrogen ingestion.[1] This obviously is most commonly encountered in women, occurs following ingestion of either oral contraceptives or conjugated estrogens given for menopausal symptoms, and can occur in virtually any woman receiving estrogen. It has been occasionally reported in men receiving diethylstilbesterol as chemotherapy for prostatic carcinoma so that even men are not excluded. The onset of this form of secondary hypertension may be evident any time from three months to many years after estrogens are begun. For this reason periodic blood pressure measurements are recommended in patients receiving oral contraceptives or conjugated estrogens. Further, these agents should not be administered to patients with known hypertension.

The next most common form of secondary hypertension is that due to stenosis of a renal artery. This is followed in frequency by primary aldosteronism, the excessive production of aldosterone by a hyperplastic or adenomatous adrenal gland. Pheochromocytoma, a tumor of the medullary part of the adrenal or the sympathetic nerve chain, is occasionally encountered as a cause of hypertension.



Less frequent among identifiable forms of hypertension are coarctation of the aorta, Cushing's syndrome, hyperthyroidism and collagen-vascular diseases.

Several criteria permit one to identify patients who are more likely to have a curable form of hypertension and thus are deserving of screening for these causes. One criterion is the age of onset of hypertension. When hypertension occurs in an individual under the age of 40, it is more likely to be a curable form of hypertension than in older individuals. Additionally, the young hypertensive faces a long life-time of antihypertensive therapy which may be expensive, complicated and cause side effects, if a curable form of hypertension is not discovered.

Another candidate for curable hypertension is the individual who has a sudden onset of hypertension. When an individual is encountered who has always been demonstrated to have a normal blood pressure, but who now manifests a sudden increase in blood pressure during a routine office visit, a curable form of hypertension may be responsible.

The author is a professor of medicine and director of the Hypertension Research Center, Indiana University School of Medicine, Indianapolis.

Correspondence: Clinical Bldg., Rm. 477, Indiana University School of Medicine, 541 Clinical Drive, Indianapolis, Ind. 46223.

Another kind of patient who should be examined carefully for a potentially curable form of hypertension is the individual who has severe elevation of blood pressure or who has funduscopic hemorrhages and exudates. These findings may be associated with a marked elevation in blood pressure and intense vasoconstriction due to renal vascular hypertension or pheochromocytoma.

Often a careful history or physical examination may provide clues that the patient has a curable form of hypertension. In addition to the funduscopic hemorrhages mentioned previously, the observation of an abdominal bruit with both systolic and diastolic components is strongly suggestive of renovascular hypertension. However, it should be emphasized that a bruit heard only in systole has no particular diagnostic significance in a hypertensive patient.

Other clues to the occurrence of a curable form of hypertension on physical examination include a difference in blood pressure between the arms and legs and a systolic heart murmur, which may indicate the presence of coarctation of the aorta. Signs and symptoms of hyperthyroidism such as tachycardia, sweating, prominent eyes, an enlarged thyroid and a history of symptoms suggesting the diagnosis may be an important clue. The typical plethora, moon facies, "buffalo hump" and violaceous striae of Cushing's syndrome may help identify that disorder. Pheochromocytoma may be associated with physical findings that include skin lesions referred to as cafe-au-lait spots, as well as neurofibromata. While only about one-third of patients with pheochromocytoma will have the typical history of paroxysmal attacks of headaches, tachycardia and sweating, when present, these can be valuable suggestive clues.

The development of effective, sensitive, and relatively inexpensive screening tests for the preliminary identification of patients likely to have a secondary form of hypertension has becn a major addition to the evaluation of such patients.[2] We have reviewed our experience with a variety of screening techniques for the identification of some of the most common forms of secondary hypertension and have developed an algorithm that is amenable to outpatient application. We have found three screening procedures to be useful in the identification of patients with renovascular hypertension.[3] Unfortunately, no single one of these screening techniques is highly sensitive for such purposes. However, the use of the three techniques in sequence provides a high degree of both sensitivity and specificity.

The first technique is the careful listening for an abdominal bruit with *both* systolic and diastolic components. In our experience 40% of patients with renovascular hypertension have such a bruit. It is important to recognize that a bruit with only a systolic component may frequently be heard in hypertensive patients, but this has no implication for the presence of renovascular hypertension.

The second component of the screening algorithm is the measurement of peripheral venous blood plasma renin activity, since 60% of renovascular hypertensive patients will have an elevated value. Unfortunately, there are also many patients with essential hypertension who have elevated renin values. To properly evaluate the renin measurement, it is important that the patient be taken off any drug that can suppress (reserpine, guanethidine, methyldopa, clonidine, guanabenz and all beta blockers) or stimulate (diuretics, vasodilators) renin release. Thus, all antihypertensive agents may interfere with this test.

The third useful screening test is the observation of an abnormal intravenous pyelogram when performed with rapid sequence (1,2 and 3 minute) films. In our experience over 70% of patients with renovascular hypertension will have an abnormality on x-ray. Our evaluation of a large population of referred hypertensive patients has taught us that while none of these screening tests *alone* is entirely adequate, the application of *all three* can be very useful.[3] If all three of these screening procedures are negative or normal, one can be 95% sure that the patient does not have renovascular hypertension.[3] However, if any one of these tests is abnormal and the patient is then admitted to the hospital for definitive study, 95% of patients with renovascular hypertension will be detected.[3] Current evaluation of a new technique, digitized vascular imaging (DVI), may prove to be more useful than the IVP since it permits visualization of the renal arteries. However, this technique is still under evaluation.

Those individuals having a positive screening test should next be admitted to the hospital for more definitive diagnostic procedures. These include both anatomical and physiological demonstration of the presence of a significant renal arterial lesion and evidence that it is responsible for the elevated blood pressure. Anatomical information can bc obtained in essentially two ways. The most direct demonstration is available from arteriography, which sometimes requires selective examination of thc renal artery and its branches and oblique films to demonstrate a segmental lesion. However, all hypertensive patients with a narrowing of the renal artery do not have renovascular hypertension. Therefore, physiologic evidence that the obstruction is contributing to the hypertension is required before therapeutic intervention can be recommended.

In our experience the best predictor of functional significance is the observation of a renal vein renin concentration that is more than 50% higher in blood coming from the involved kidney than from the contralateral side in the case of unilateral renal artery stenosis. To maximize the likelihood that a functionally significant difference in renal vein renin concentration will be observed in a patient with renal artery stenosis, it is important that three relatively simple procedures be followed.

First, the patient must be removed from antihypertensive agents that are known to suppress renin release for a period of three-seven days. This includes all antisympathetic agents such as reserpine, methlydopa, guanethidine, clonidine, guanabenz and all beta adrenergic blocking agents. Diuretics and

vasodilators (hydralazine, captopril) can be utilized for blood pressure control. The second way to enhance the detection of the functionally significant differences in renal vein renin concentration is to stimulate the renin system by administering diuretics prior to renal vein renin sampling and by upright tilting to 45 degrees using a tilt table at the time samples are obtained.[4]

In the past several years two pharmacologic agents that interfere with the renin-angiotensin system have been proposed as useful screening tests for renovascular hypertension. This includes the angiotensin II antagonist, sarcosine-1-alanine-8-angiotension II (Sarenin) and the angiotensin converting enzyme inhibitor, captopril (Capoten). Theoretically, these agents, which directly interfere with the blood pressure-raising effects of angiotensin II, should be extremely effective in reducing blood pressure in patients with renovascular hypertension. Indeed, this is often the case. However, they have also been found to be effective in reducing blood pressure in many hypertensive patients who do not have renovascular hypertension. Therefore, the specificity of these pharmacologic agents as a screening or diagnostic test is not very great.[3]

Once evidence of functional significance for a renal vascular lesion is demonstrated, a decision regarding therapeutic approaches to the patient must be made. At the present time it appears that surgical intervention offers more advantages than continued medical therapy, even when the latter is effective in reducing blood pressure, because it reverses the underlying pathophysiology. More recently, the availability of an alternative method to the treatment of renal artery stenosis, percutaneous transluminal angioplasty (balloon dilatation), has stimulated much interest. However, this procedure has only been applied relatively recently to renovascular hypertension and additional time will be required to evaluate its effectiveness and most appropriate utilization.[5,6]

The secondary form of hypertension seen with the next greatest frequency is that caused by primary aldosteronism. While serum potassium measurements have been traditionally used to screen for this potentially curable form of hypertension, we have reported that the serum potassium may be falsely normal in up to 25% of such patients.[7] We have found that the measurement of plasma renin activity, when suppressed, is the most sensitive screening test for primary aldosteronism. However, it is necessary to optimize the conditions under which the renin measurements are made to avoid false negative responses. Thus, it is important to obtain blood for renin measurements at a time when the patient is not receiving agents known to suppress or lower renin release such as those mentioned previously. Secondly, since the renin suppression associated with primary aldosteronism does not respond to the normal stimuli to renin release, such as sodium and volume depletion, it is frequently useful to obtain samples after the patient has received a diuretic. This will insure the detection of patients who have a truly suppressed level of plasma renin activity.

Unfortunately, all patients with hypertension and suppressed renin values do not have primary aldosteronism since some of these individuals have low renin essential hypertension. To separate these two kinds of hypertension demonstrating renin suppression, it is necessary to perform an additional study to identify the patients with primary aldosteronism who have excessive, non-suppressible aldosterone production. For this purpose we use the saline infusion test.[8]

This test can be performed on an outpatient basis and consists of the intravenous administration of two liters of normal (0.9%) saline over a four-hour period. If the plasma level of aldosterone at the end of the saline infusion is greater than 10 ng/dl, then evidence of non-suppressible aldosterone production has been obtained. Thus, in this form of secondary hypertension the entire diagnosis, from screening to specific diagnosis, can be made on an outpatient basis. Once the diagnosis is made, however, it is important to separate those with unilateral from those with bilateral adrenal disease since in the former case surgery is usually curative while in the latter medical treatment is preferable.[7] Several techniques that are useful in this regard have been outlined in a previous publication on primary aldosteronism.[7]

To identify patients with pheochromocytoma, the history of paroxysmal attacks of tachycardia, headaches and sweating are frequently useful. However, these are encountered in only about 30% of surgically proven cases of pheochromocytoma.[9] Thus, a high index of suspicion in any patient with hypertension, particularly in the presence of a family history of hypertension, in the presence of diabetes mellitus or if the patient has the skin lesions described earlier in this article is required to identify this curable form of hypertension.

The screen for pheochromocytoma requires the demonstration of excessive production of catecholamines. This is usually obtained by measuring urinary excretion of catecholamines or their major metabolites (VMA or metanephrines). However, many of these measurements are fraught with false positive and false negative responses because of variability in catecholamine production by the tumor, incomplete or inadequate urine collection, or insensitive laboratory methods (including interference from a variety of sources). These sources of interference may be medication used to treat high blood pressure, food rich in tyramine or other compounds reacting in the assay method used, or the use of certain diagnostic tests and contrast dye. We have found that the radioenzymatic measurement of norepinephrine excreted into the urine during the sleep period is the most sensitive, specific and simple screening test.[10]

Another new procedure that has considerable merit is the clonidine suppression test.[11] Both of these tests are amenable to outpatient application. The clonidine test is based on the observation that the antisympathetic agent, clonidine (Catapres), is capable of suppressing sympathetic nervous system activity. In a

hypertensive patient who does not have a pheochromocytoma, the administration of 0.3 mg of clonidine orally should be followed, within three hours, by a 50% decrease in the baseline level of plasma catecholamines. While it is possible that false negative responses may be seen, experience to date has been impressive.

If a screening test for pheochromocytoma is positive, then additional studies to localize the tumor are in order. This enables the surgeon to approach the surgical procedure with a minimum of risk for the patient, since he will be able to rapidly isolate the blood supply of the tumor, avoiding excessive manipulation. Several techniques have been utilized to localize the tumor and the one we have found most consistently helpful has been the C-T scan of the adrenals.[12]

It is also very important that patients with pheochromocytoma be properly prepared before surgery to avoid the risk of profound hypotension and shock. We accomplish this by administering an alpha adrenergic blocking agent, Dibenzyline, for seven to 10 days prior to surgery. The adequacy of the Dibenzyline blockade is evaluated by increasing the dose until the patient has mild orthostatic hypotension. The vasodilation and volume expansion that results from effective alpha adrenergic blockade reduces the likelihood of profound hypovolemic shock after the tumor is removed.

As previously mentioned, the other secondary forms of hypertension are more rare and usually include clues that the patient has an underlying cause for hypertension. The signs and symptoms of hyperthyroidism are well known and are usually present in addition to the blood pressure elevation. It is important to remember that, when hyperthyroidism occurs in older individuals, the traditional signs may be lacking because of the diminished adrenergic response associated with aging. Thus, tachycardia, atrial fibrillation and hypertension may be the only clues when hyperthyroidism occurs over the age of 60. Thyroid function studies will clinch the diagnosis. Similarly, the possibility of Cushing's syndrome should be suggested by other signs and symptoms in addition to hypertension, and the diagnosis established by demonstrating increased production of glucocorticoids in plasma (cortisol) or urine (17-hydroxycorticosteroids or free cortisol) even after administration of dexamethasone. When collagen vascular disease is responsible for hypertension, it is the result of renal involvement. Thus, evidence of renal impairment (increased BUN and creatinine in blood, decreased creatinine clearance, proteinuria and hematuria) should stimulate further investigation of this possible etiology for hypertension.

In the vast majority of hypertensives encounterd by the primary care physician, none of the previously mentioned criteria or clues prompting further scrutiny for secondary hypertension are present. For these individuals who have an unremarkable physical examination and history, a simple laboratory workup is appropriate. The tests are chosen to define the status of end-organ function, to provide a baseline for future assessment of progression of existent impairment or the effect of antihypertensive therapy, and to identify coexistent risk factors for vascular disease (in addition to hypertension).

A chest x-ray will provide information about cardiomegaly and an EKG will indicate the presence of existent myocardial damage or arrhythmia. A postprandial glucose will reveal carbohydrate intolerance and a fasting lipid profile (cholesterol, triglycerides, HDL and LDL) will identify those at increased risk for vascular disease because of diabetes and hyperlipidemia. A routine urine analysis will permit identification of patients with occult renal disease, and a BUN or serum creatinine (or endogenous creatinine clearance) will provide a quantitative measure of renal function.

Other specialized tests are reserved for the patients described earlier who are candidates for further evaluation of curable forms of hypertension. For the remainder the sequential approach to antihypertensive therapy outlined in "Antihypertensive Therapy: A Mechanistic Approach" appearing in the March 1983 issue of THE JOURNAL is appropriate.[13]

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A Comparison of Conventional Needle and Fine-Needle Aspiration Liver Biopsies



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NEEDLE BIOPSY has proven to be a safe and effective diagnostic tool in infectious, toxic, metabolic and neoplastic liver disease. The Menghini[1,2] and Vim-Silverman[3] techniques are the proven standards. In recent years fine needle aspiration using 22-23 gauge needles has been popularized, particularly in the diagnosis of liver neoplasms. These long, fine caliber needles can be used with fewer complications and in situations where conventional biopsy would be contraindicated or technically impossible.

Growing experience in cytologic examination and improved cytologic techniques are providing sensitivity and specificity that rival histologic diagnosis of neoplastic disease. In diffuse parenchymal disease like cirrhosis, conventional needle biopsy techniques providing larger specima for histologic examination are still the methods of choice[11,12] although cytologic study is improving.[4,5]

The addition of radiologic guidance, usually ultrasound or CT, has provided better sensitivity and increased safety in liver biopsies by either technique.[6,7,8,9,10]

This analysis is an attempt to utilize the existing literature to compare conventional techniques and fine-needle aspiration in terms of morbidity, mortality, and diagnostic usefulness in the evaluation of patients with suspected liver malignancies.

Needle biopsies of the liver for diagnostic purposes have been done for almost 100 years. As experience, methodology, safer needles, and clearer definition of contraindications have developed, the intuitively dangerous procedure has proven to be relatively safe. Zamcheck and Klausenstock reported a series of 20,016 conventional needle biopsies of the liver done between 1907 and 1953.[12] The mortality in this series was .19%, with hemorrhage the most common cause of death and bile peritonitis a distant second. This figure was only .085% if adjusted to omit early cases where biopsy was clearly contraindicated by modern standards. Terry[13] reported a series of 10,600 biopsies with .12% mortality and 4.4% morbidity, chiefly hemorrhage. Perrault, *et al*[25] reported significant hypotension after Tru-Cut needle biopsy in 2.8% of cases.

Complications have been significantly reduced with the use of the Menghini needle. In large series of 23,382[14] and 79,381[15] biopsies, the mortality was reportedly .017% and .015%, respectively. Serious complications arose in an additional .34% in the later series. Knaver[26] reported significant hemorrhage in only .5% of Menghini liver biopsies.

Hemorrhage is the most significant complication of liver biopsy, accounting for most morbidity and mortality. Other reported complications besides pain include perforation of other abdominal organs (e.g., colon), pneumothorax, bile peritonitis, needle fracture, hematoma and septicemia. Certainly, patient selection, needle type, the physician's experience and post-biopsy care all affect the rate and gravity of complications. But overall, the mortality rate of conventional needle liver biopsy techniques appears to be in the range of .01% to .1%. Significant complications probably arise in an additional 1% to 4% of cases.

Fine needle aspiration for liver biopsy would seem, intuitively, to be a safer procedure. In studies to date, this has been the case. Mortality, although not unknown,[16] has been very rare. In fact, the existing series of several thousand biopsies are not large enough and fatalities have been too rare to make dependable estimates of the mortality rate. Lundquist[17] reported a series of 1,748 fine-needle liver aspirations without complications and later one intrahepatic

At the time this article was written, the author was a senior medical student at Indiana University School of Medicine. He prepared the paper as part of a gastroenterology elective.

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hematoma requiring surgical evacuation in 2,611 biopsies . . . a complication rate of .04%.[18] Holm, *et al*[19] found only two incidentally discovered hematomas in over 2,000 intraabdominal aspiration biopsies (.1%). In smaller series[9,20] complications requiring treatment have occurred in 1% and other minor complications in 3% of cases. Reported complications include hematoma, pneumothorax, septicemia and carcinomatous seeding of the needle tract. Thus, the current literature indicates that fine needle aspiration biopsies of the liver are accompanied by fewer complications, perhaps only one-tenth as many as conventional needle biopsies.

A biopsy technique must consistently yield diagnostic tissue for it to be useful. Conventional needle biopsy techniques yield relatively large pieces of tissue suitable for histologic section and examination whereas aspiration techniques usually yield only cells for cytologic study. Actually, the Menghini needle can yield specima for both histologic and cytologic analysis in one pass[21,22] and there are recent reports of special techniques with fine needles to obtain specima suitable for both types of examination.[20] But, in general, conventional techniques have depended on histologic diagnosis alone and fine-needle aspirations on cytology.

Either technique can be guided by CT or ultrasound to increase the likelihood of sampling a lesion in question. Most often, however, the standard punch biopsies are done "blindly" in the eighth, ninth, or tenth intercoastal space in the right mid-axillary line or directed subcostally toward a palpable lesion whereas fine-needle aspirations are nearly always radiologically guided.

Besides safety, the fine-needles have the advantage of being able to reach deeper lesions since they are usually longer. Longer conventional needles could be used but with deeper passes could injure structures like dilated bile ducts, gall bladder or colon, thus making the complication rate objectionable. The smaller needles may pass through such structures with minimal effects.[9,27]

Another advantage of the fine-needle technique is that multiple passes of the needle can be performed to increase the likelihood of obtaining diagnostic cells without an objectionable complication rate.[11,20] The question concerning fine-needle aspiration is whether cytologic study can be as accurate as histology. As previously mentioned, in diffuse parenchymal liver disease, especially cirrhosis, aspiration techniques frequently have poor yield of cells and diagnosis is tenuous. In neoplastic disorders, both metastatic and primary, the technique rivals histologic examination.[11,21]

In patients with liver neoplasms, the rate of recovery of diagnostic tissue using conventional techniques is quite variable. Conn and Yesner[23] reported a range in previous studies from 66% to 91%, with an average of 71%. They hypothesized that the discrepancy was partially a result of varying degrees of selection of patient populations. In their own series of 106 patients with autopsy proven liver metastases, pre-autopsy needle biopsies were positive in 58% of cases. The extent of liver involvement was graded on a scale of I to IV. The percentage of positive biopsies was proportional to the liver involvements as follows: I-21%, II-33%, III-65%, and IV-100%. These, however, were "blind" biopsies. In a series of 31 proven malignancies, CT-guided Menghini biopsy made the correct diagnosis in 26 (84%).[10]

Cytologic analysis was shown to be valuable in the diagnosis of hepatic neoplasms in two studies using the Menghini technique. Grossman, *et al*[22] found combined histologic and cytologic analysis diagnostic in 27 of 39 cases (69%) of metastatic liver disease. Cytology was positive and histology negative in 15% while the opposite was true in 11%. Carney[21] found cytology and/or histology positive for malignancy in 27 cases. Eight of the cases had only positive cytology while in only one case was histology alone positive.

Several authors have shown cytodiagnosis from fine-needle aspiration to be highly sensitive for liver malignancy. Lundquist[17] found it diagnostic in 78% of 57 proven cases. Ferrucci, *et al*[9] found 83% sensitivity. Zornoza, *et al*[11] reported an overall success rate (TP + TN/cases) of 83%. The diagnosis of specific tumor types and sites of origin is more difficult. Most studies have dealt primarily with metastatic disease and have considered a biopsy successful if it correctly identified malignancy versus no malignancy. Special staining techniques exist and more are being researched, but at this time experience and evidence of clinical utility are lacking.

Special problems arise in primary liver cancer. Hepatocellular carcinoma can be so well differentiated that it cytologically resembles benign regeneration. In other cases cells are easily identified as malignant but they are so undifferentiated that their hepatic origin is obscure. In most cases, however, primary liver malignancies can be identified cytologically. A combination of two series[17,24] shows a correct diagnosis in 10 of 15 cases. Ekelund and Wasastjerna[24] showed that naphthylamidase staining of bile canaliculi in cytologic specimens is a promising technique for differentiating primary from secondary hepatic cancers. Ten of 10 biopsies of metastatic lesions were negative, three of three hepatocellular carcinomas were positive and both bile duct carcinomas showed a characteristic granular positive reaction in the cyptoplasm.

In summary, fine-needle aspiration is an important diagnostic tool in the evaluation of liver malignancies. Although conventional needle biopsy is a safe procedure, fine-needle techniques provide greater safety and cytologic diagnosis has been shown to be as sensitive as histologic study. Using fine-needle aspiration as a first attempt at pathologic proof of liver malignancy and reserving conventional needle biopsy for questionable cases and evaluation of diffuse parenchymal disease seems appropriate.

It should be noted that cytologic diagnosis of primary and metastatic liver tumors is not routine in most pathology departments today. Facilities and experience are not universally available. Consultation with the pathologist before choosing a biopsy technique is time well spent. Both needle biopsy techniques have a firm place in today's diagnostic arsenal and can often be complementary.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy,* Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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The Prevalence of Cigarette Smoking Among Teenagers: An 18-Year Study

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The authors surveyed the smoking behavior of teenagers at a northern Indiana high school on three occasions . . .

IT HAS BEEN 18 years since the Surgeon General's office released its report demonstrating the strong relationship between cigarette smoking and lung cancer, as well as other pulmonary and cardiovascular diseases. Consensus now exists among medical scientists that cigarette smoking is the greatest cause of preventable illness and premature death in the United States.[20] The decision to smoke or not to smoke is made very early in life, often by junior high school and almost always before age 20. Research has clearly shown that the majority of these teens will continue to smoke regularly for life.[4, 5, 8, 11, 17, 19, 20] Therefore, examining the smoking behavior of teenagers is of critical importance.

This study began shortly after the Surgeon General's Report was published. In 1964, students at a high school in South Bend, Indiana, were questioned as to their cigarette smoking habits and attitudes. The same high school was resurveyed in 1977. Now, 18 years after the initial study, the high school students were again polled and the results of the three survey years compared. The purpose of this study was to document trends in smoking among teenagers, and to see what changes, if any, have occurred over the years. The information gained can be compared and added to national statistics, and used by the local community as a measure of the impact of the antismoking campaign.

Population & Methods

The population chosen for study was the entire student body of James Whitcomb Riley High School in South Bend, Indiana. The students represent a good cross-section of ethnic, racial, and socioeconomic backgrounds. School officials feel that the population this high school draws from has remained remarkably stable over the 18 years this study spans.

In the 1964 study, the population surveyed included the 9th, 10th, 11th, and 12th grades at Riley High School. In 1977, however, changes in the school system in South Bend made it necessary to survey the 9th grade at nearby Jackson

TABLE 1
Male and Female Smokers by Age Group

		1977		1982	
		No.	%	No.	%
13-14	Male	5/99	5.1	3/35	8.6
	Female	24/132	18.2	8/54	13.6
15	Male	37/250	14.8	13/136	9.6
	Female	90/276	32.6	14/110	12.7
16	Male	46/215	21.4	19/134	14.2
	Female	57/191	29.8	19/132	14.4
17	Male	34/142	23.9	12/133	9.0
	Female	30/149	20.1	16/113	14.2
18-19	Male	38/113	33.6	14/83	16.9
	Female	27/87	31.0	9/58	15.5

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Middle School, as Riley High School no longer had a 9th grade. Since the 1977 study, the 9th grade students returned to Riley High School, thus producing in 1982, the same circumstances as existed in the 1964 study.

The studies were conducted using the same method in all three survey years. The following questionnaire was distributed to all high school students in attendance during the first hour and collected immediately upon completion:

Do not give your name.
Draw a circle around the right answer.

1) Age? 13 14 15 16 17 18 19
2) Do you smoke cigarettes regularly? Yes No
3) Do either of your parents smoke Cigarettes? Yes No
4) Do you think cigarette smoking is harmful? Yes No
5) Sex: M F

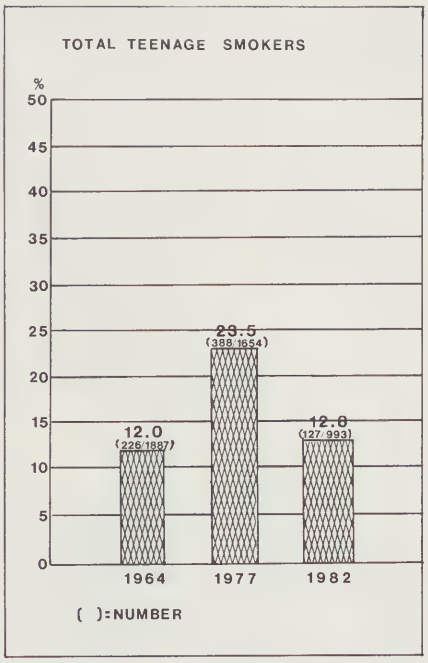


FIGURE 1

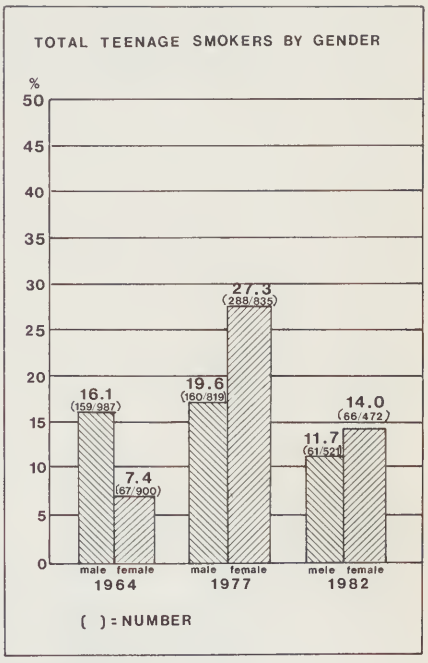


FIGURE 2

Results

Figure 1 depicts the total percentage of teenage smokers in each of the survey years, while *Figure 2* further divides the results into the percentage of all boys and all girls who smoked during those years. It is apparent from the data that teenage smoking in this high school nearly doubled between 1964 and 1977. While there was only a modest increase in smoking among boys, smoking in the female population increased almost fourfold between 1964 and 1977. While male smokers outnumbered female smokers by more than 2:1 in 1964, by 1977, teenage girls were smoking considerably more than their male counterparts. The 1982 survey revealed a sharp decline in the total amount of smoking. In the five-year period between studies, teenage smoking decreased almost to the 1964 level. Female smoking remains slightly higher than male smoking, and the percentage of girls smoking is significantly higher now than in 1964. The total percentage of high school boys smoking in 1982 is even lower than that found in the 1964 survey.

The data for teenage smoking according to age group are shown in *Figure 3*. In 1964, cigarette smoking became gradually more prevalent with advancing age. The 1977 study revealed increases in smoking for all age groups, but with dramatically large increases occurring in the 13- through 16-year-old age groups. By 1982, cigarette smoking had decreased at every age level compared to 1977 statistics. The decrease was very slight in the 13-14-year-old age group, with marked decline in smoking occurring in all age groups from 15 to 19 years between 1977 and 1982. Comparing 1982 statistics to 1964 data, it can be seen that cigarette smoking remained more prevalent in 1982 among 13-, 14-, and 15-year-olds than in 1964. However, the percentage of 17-, 18-, and 19-year-olds smoking in 1982 was significantly lower than in 1964.

In *Table 1*, the percentage of smokers by age group is further subdivided by gender for the 1977 and 1982 studies. Because of very consistent increases with each succeeding age group for both boys and girls in 1964, no statistics were compiled by gender for each age group that year. However, in 1977, it became obvious that the greatest increases in smoking took place among the young female population. The percentage of girls smoking in the 13- through 16-year-old age groups far exceeded the percentage of male smokers, while in the 17- through 19-year-old age groups, the percentages of male and female smokers were approximately equal. In 1982, the significant decreases in teenage smoking cut across both male and female groups. The greatest decreases have occurred in girls at each age group, and in 17-19-year-old boys. The only group to show an increase in percentage smoking between 1977 and 1982 was the 13-14-year-old male group, and this increase was very modest. In the 1982 study, percentages of male and female smokers very closely approximated each other in every age group.

Students' attitudes toward smoking are summarized in *Table 2*. In 1964, 73.1% of students felt that smoking was harmful to their health, while in both the 1977 and 1982 surveys, approximately 96% of students felt cigarettes smoking was harmful.

Finally, parental influence on teenage smoking is shown in *Table 3*. In 1964, smoking students were very likely to have a smoking parent. However, the percentage of smoking students having a smoking parent steadily decreased over the

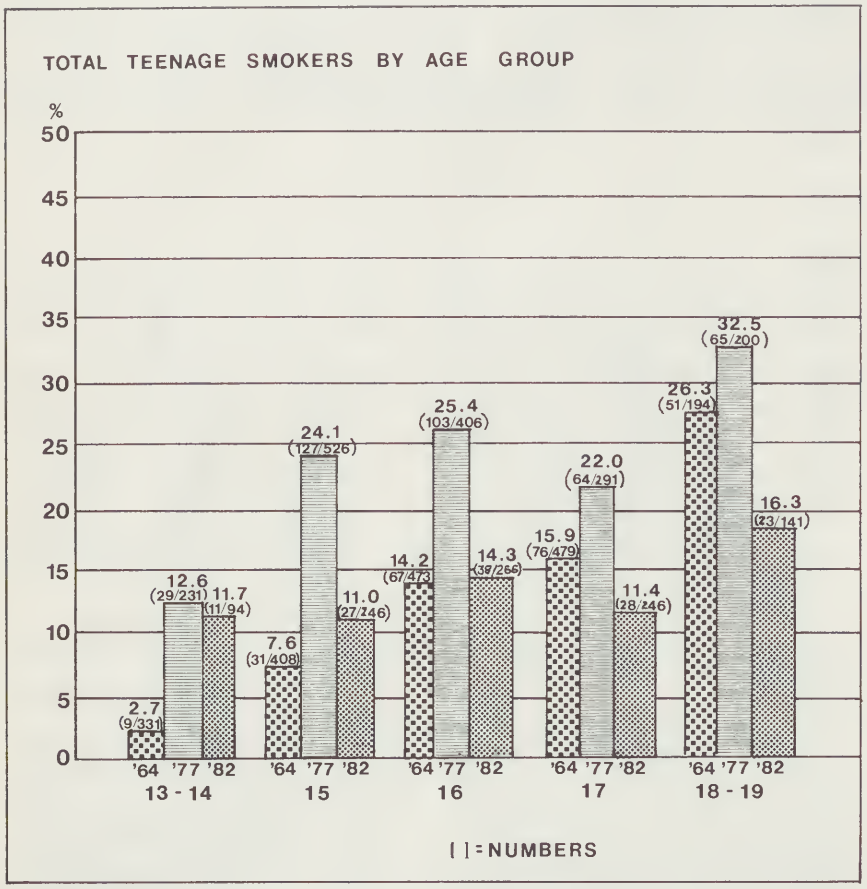


FIGURE 3

18-year study period. Over this same time period, the percentage of non-smoking students having a smoking parent remained quite constant, varying between 50.7% and 57.4%. In the 1982 study, for the first time, smoking teenagers were less apt to have smoking parents and nonsmoking teenagers were more likely to have smoking parents.

Discussion

Since the Surgeon General's Report on Smoking and Health was first published in 1964, a massive anti-smoking campaign has been launched. It has been an educational process directed toward adults as well as children, and has taken place in an age of increasing health awareness in general. In the last 18 years, the prevalence of smoking in the adult population has shown a steady decline.[6, 10, 21] By contrast, trends in teenage cigarette smoking over this same time period have been significantly different.

In this study of Indiana high school students, there was a dramatic increase in teenage cigarette smoking from 1964 to 1977. This increase was particularly marked among girls and in the 13- through 16-year-old age groups. Very similar results have been published from studies of high school students in other areas of the United States, as well as in Canada and England.[7, 8, 10, 15, 18] The increase in teenage smoking occurred despite the anti-smoking campaign and despite the fact that 96% of high school students in 1977 felt that cigarette smoking was harmful. Educational efforts during that time period were largely based on scare techniques, quoting the long-term dangers of cigarette smoking to health. Although these tactics appear to have been successful in decreasing the smoking behavior of adults, they were ineffective in changing smoking behavior of the teenage population. The pressures to conform to one's peer group were much more intense than the threat of cigarette-induced disease 40 to 50 years in the future.[10, 18, 20]

The results of the 1982 study were surprising and encouraging, revealing a pronounced decrease in teenage smoking in general when compared to the study done five years earlier. The decline in cigarette smoking was apparent at every age group, and included girls as well as boys. The greatest decreases occurred in girls at each age group, and in 17- to 19-year-old boys. Bachman, *et al*, conducted a survey of smoking, drinking, and drug use among American high school seniors from 1975 to 1979. They likewise found that teenage cigarette use reached a peak in 1976 and 1977, and trended downward thereafter.[1] Since the mid 1970s, special anti-smoking programs have been designed for school-age children to communicate the immediate physiological effects of cigarette smoking on healthy young people, and train students to resist pressures to smoke from peers, media, and role models.[13, 16, 20] These programs may be contributing to the decline in teenage smoking. In addition, peer pressures in general may be shifting against smoking. Furthermore, there may be a substitution of other

TABLE 2
Teenage Attitudes Toward Smoking

	1964		1977		1982	
	No.	%	No.	%	No.	%
Students thinking smoking harmful	1380/1887	73.1	1587/1654	96.0	958/993	96.5

drugs for cigarettes, as marijuana use among high school seniors showed a dramatic increase throughout the 1970s, finally leveling off in 1979.[1, 2]

A striking trend revealed in this study was the marked increase in smoking among teenage girls over the last 18 years. In 1964, male smokers outnumbered female smokers by more than 2:1, but girls are now smoking slightly more than their male counterparts. This finding has been well documented in the literature.[1, 5, 7, 8, 10, 20] It may be that many social differences between the sexes are gradually disappearing in light of the women's movement. Or, perhaps smoking by teenage girls is perceived as more socially acceptable now, leading to more honest self-reports of smoking rather than an actual increase in smoking.

In 1964 and 1977, smoking students in this survey were more likely to have a smoking parent than were nonsmoking students. A number of studies conducted from 1959 to 1979 also found parental smoking to be significantly related to the smoking behavior of high school students.[3, 4, 9, 12, 14, 15] Surprisingly, a reverse trend was revealed in this 1982 survey, with smoking students being less likely to have a smoking parent, while nonsmoking students were more likely to have a smoking parent. It will be interesting to see if other future studies concur with this finding. Perhaps parental smoking behavior is becoming a negative influence on children and teens.

Although the recent decline in teenage cigarette smoking is encouraging, there are still more than 6 million children and teenagers smoking today.[19] The smoking behavior of teenagers will continue to be an important area for research. New and better means of school health education will be of critical importance in reaching students before they start smoking. In addition, health care personnel need to take an active role in discouraging smoking by adolescents. For it is apparent that no other measure in preventive medicine could do more to improve health and prevent premature death than the control of cigarette smoking.[19]

TABLE 3
Parental Influence on Teenage Smoking

	1964		1977		1982	
	No.	%	No.	%	No.	%
Smoking students having smoking parent	185/226	81.9	271/388	69.9	56/127	44.1
Non-smoking students having smoking parent	954/1661	57.4	642/1266	50.7	478/866	55.2

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Notes from

The Royal College of Surgeons of England

AUSTIN L. GARDNER, M.D.
MALCOLM B. HERRING, M.D.
Indianapolis

"El Zahrawi (936-1013 A.D.), the Father of Operative Surgery," by Ismail A. Nabri, F.R.C.S., was the last article in the March 1983 issue of the *Annals of the Royal College of Surgeons of England* but it was certainly the most interesting.

El Zahrawi was born in a suburb of Cordova in Spain when it was a part of the vast Islamic-Arabic Empire. Cordova was known as the "Ornament of the World." Every boy in the city was able to read and write by the age of 12. In the province of Andulesia there were six universities and 70 public libraries. El Zahrawi wrote a 30-volume surgery textbook of 1,500 pages and 200 drawings entitled "El Tasreef."

His contributions were impressive. 1) He carefully defined the use of the cautery—advocating the red hot iron as opposed to the white hot iron. 2) He windowed casts for the care of wounds. 3) In ophthalmology he described operations for entropian, pterygium, and cataract.

4) In ENT, for tracheostomy, he said "count three or four rings . . . cut the membrane . . . and attach the cartilages to the skin;" for tonsillectomy . . . insert a hook . . . pull it outwards . . . cut by means of strong scissors. 5) In dentistry, he fixed teeth with gold and silver. He replaced traumatised teeth. He advocated animal bones for missing teeth.

6) In vascular surgery, he differentiated arteries and veins by pulsation. He was the first to use the aneurysm needle. He used catgut ligatures. He pointed out that transected vessels retract and clot and incised vessels continue to bleed. Arteries bled from both ends when cut across. Bleeding could be stopped by digital pressures, cautery, dry dressings or cold water.

7) In urology, he described a) operations for children born without external urinary openings, b) circumcision enumerating mistakes, c) the use of catheters for retention, d) the removal of bladder stones by perineal incision, e) and fistula into vagina and rectum.

8) In obstetrics, he described a) "Walcher's position" for difficult labor, b) "Crede's method" for extraction of the placenta, c) he described forceps, thus preceding the Chamberlens by several hundred years.



9) He described operations for inguinal hernia, hydrocele, varicocele, hemorrhoids, and anal fistula, supernumerary and fused digits, ingrowing nails, large male and female breasts, and hermaphroditism and described shoulder dislocation reduction.

Zahrawi concluded by noting that "working with one's own hands has, unfortunately, come to be regarded as a disgrace. This is why there are no expert surgeons." He quoted Galen who said, "Doctors by name are many, but in actual fact they are few."

Zahrawi said that those who lack a good grasp of anatomy are prone to commit serious and even fatal mistakes. "Beware of things that will arouse suspicion in your character and in your religion."

This story of Abul Gasim Khalaf Ibn Abbas, El Zahrawi by Doctor Nabri has been reviewed extensively because our concept of the "Dark Ages" and the "renaissance of medicine" needs reconsideration in the light of his knowledge.

* * *

The Hunterian Lecture on Factors Influencing Wound Complications by Timothy Bucknall compared results of layer closures of abdominal wounds prior to 1977 with an incidence of dehiscence of 3.8% to a .76% incidence after 1977. He quoted Moynihan as saying that every operation in surgery is an experiment in bacteriology. His requirements for the ideal suture included freedom from infection and irritation, strength and disappearance when the work was finished.

His conclusion after evaluating monofilament nylon and polyglycolic acid sutures in the closure of abdominal wounds was as follows: "We have confirmed what John Hunter wrote in 1790, 'A wound will not heal while there is slough to separate' and have shown the importance of using a monofilament nonabsorbable suture in this instance."

* * *

John K. McGeachie and associates investigated the transplantation of allografts from immune incompatible DA and Lewis inbred rat strains. Lewis-to-Lewis isografts served as controls. A segment of the iliac artery was replaced with iliac vein. One week after implantation, most of the tissue had become necrotic and after two weeks an endothelial layer had reformed, leaving the remainder of the wall constructed of connective tissue. The wall thickness increased over the next several weeks until plaque-like material developed by the 18th and final week of the study. Aneurysms occurred only in the Lewis-to-DA combinations. Interestingly, there were no histologic differences between the allo- and isografts. The authors concluded from their study that the histologic changes in the venous graft were unrelated to immunologic events.



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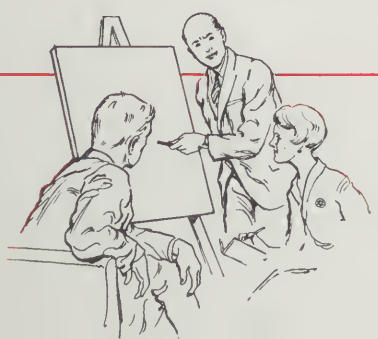
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BRIEF SUMMARY
PROCARDIA (nifedipine) **CAPSULES** For Oral Use

INDICATIONS AND USAGE: I. Vasospastic Angina: PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm. In those patients who have had angiography, the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied. PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component but where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion or in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and or adequate doses of beta blockers.

II. Chronic Stable Angina (Classical Effort-Associated Angina): PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina), PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in those patients are incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta-blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings.)

CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA.

WARNINGS: Excessive Hypotension: Although in most patients the hypotensive effect of PROCARDIA is modest and well-tolerated, occasional patients have had excessive and poorly tolerated hypotension. These responses have usually occurred during initial titration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Severe hypotension and or increased fluid volume requirements have been reported in patients receiving PROCARDIA together with a beta blocking agent who underwent coronary artery bypass surgery using high dose fentanyl anesthesia. The interaction with high dose fentanyl appears to be due to the combination of PROCARDIA and a beta blocker, but the possibility that it may occur with PROCARDIA alone, with low doses of fentanyl, in other surgical procedures, or with other narcotic analgesics cannot be ruled out. In PROCARDIA treated patients where surgery using high dose fentanyl anesthesia is contemplated, the physician should be aware of these potential problems and, if the patient's condition permits, sufficient time (at least 36 hours) should be allowed for PROCARDIA to be washed out of the body prior to surgery.

Increased Angina: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Beta Blocker Withdrawal: Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release. There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA.

Congestive Heart Failure: Rarely, patients, usually receiving a beta blocker, have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater risk for such an event.

PRECAUTIONS: General: Hypotension: Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. (See Warnings.)

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug Interactions: Beta-adrenergic blocking agents. (See Indications and Warnings.) Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates: PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antianginal effectiveness of this combination.

Digitalis: Administration of PROCARDIA with digoxin increased digoxin levels in nine of twelve normal volunteers. The average increase was 45%. Another investigator found no increase in digoxin levels in thirteen patients with coronary artery disease. In an uncontrolled study of over two hundred patients with congestive heart failure during which digoxin blood levels were not measured, digitalis toxicity was not observed. Since there have been isolated reports of patients with elevated digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing PROCARDIA to avoid possible over- or under-digitalization.

Carcinogenesis, mutagenesis, impairment of fertility: When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose.

Pregnancy, Category C. Please see full prescribing information with reference to teratogenicity in rats, embryotoxicity in rats, mice and rabbits, and abnormalities in monkeys.

ADVERSE REACTIONS: The most common adverse events include dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%. Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antianginal medication. Additionally, the following have been reported: muscle cramps, nervousness, dyspnea, nasal and chest congestion, diarrhea, constipation, inflammation, joint stiffness, shakiness, sleep disturbances, blurred vision, difficulties in balance, dermatitis, pruritus, urticaria, fever, sweating, chills, and sexual difficulties. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

Laboratory Tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CPK, LDH, SGOT and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy. The relationship to PROCARDIA therapy is uncertain. These laboratory abnormalities have rarely been associated with clinical symptoms. Cholestasis, possibly due to PROCARDIA therapy, has been reported twice in the extensive world literature.

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA CAPSULE contains 10 mg of nifedipine. PROCARDIA CAPSULES are supplied in bottles of 100 (NDC 0069-2600-66), 300 (NDC 0069-2600-72), and unit dose (10x10) (NDC 0069-2600-41). The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

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WILLIAM M. DUGAN, JR., M.D.
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Twins who have had cancer are needed for a University of Southern California study of possible environmental causes of the disease.

Dr. Thomas Mack, a professor of family and preventive medicine at the USC School of Medicine, is interested in hearing from twin pairs in which one or both have contracted cancer.

Mack hopes to attract twins from throughout North America for the International Twin Study, which began over a year ago. Twins may be fraternal or identical. Interviews will be conducted via telephone or mail.

Interested twins or persons knowing of twins with cancer may call Mack's office, toll free at 1-800-421-9631. They may also write c/o the International Twin Study, USC School of Medicine, Parkview Medical Building B-105, 2020 Zonal Avenue, Los Angeles 90033.

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"But, Doctor, you said. . ." is a discussion-promoting program for presentation to physicians, nurses and other health care personnel, especially during their training years. The aim of this motion picture is to increase awareness of the importance of verbal and non-verbal communication, and help professionals improve their interview skills.

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This motion picture is available through the Indiana Division of the American Cancer Society, 317-257-5326.

Other Indiana Division ACS Materials

Professional Education Material Catalog: An updated edition of the ACS National Professional Education Materials Catalog, code #3028, is now available from the ACS, 317-257-5326.

Differential Diagnosis of Upper Gastrointestinal Bleeding in Patients with Cancer: This new publication updates an article that first appeared in the January/February 1978 issues of *Ca-A Cancer Journal for Clinicians*. This article discusses the principal causes of GI bleeding—gastritis and stress ulcers, cancer, peptic ulcers, esophageal and gastric varices, and esophagitis. Contact the Indiana Division ACS, 317-257-5326 for a copy.

Oncology Directory

The American Clinical Oncologic Societies has an *Oncology Directory of Members*, 1983, available for $12. The directory lists the members of the following cancer-related organizations: American Association for Cancer Education, Inc., American Radium Society, Inc., American Society of Clinical Oncology, Inc., American Society for Head and Neck Surgery, American Society of Therapeutic Radiologists, Association of Community Cancer Centers, Society of Gynecologic Oncologists, Society of Head and Neck Surgeons, Society of Surgical Oncology, Inc., and American Society of Preventive Oncology.

The directory can be purchased by sending a $12 check payable to "Oncology Directory," to American Clinical Oncologic Societies, Director of Members, 422 French Road, Rochester, N.Y. 14618.

Pain Control

A new patient education booklet, "Questions and Answers About Pain Control," is now available. This booklet was originally developed through the Connecticut Division of the ACS and the Yale Comprehensive Center. It was revised by the National Cancer Institute and is now being printed and distributed by the ACS as part of an expanded program in cancer patient (and family) education.

The booklet presents excellent information to patients about cancer related pain. It is designed to refute the notion that a diagnosis of cancer means intractable pain and emphasizes the active role that patients can play in identifying and treating their pain. A variety of methods to alleviate pain are described including pharmacologic and non-pharmacologic methods such as relaxation and distraction. It provides a helpful and upbeat message to cancer patients. The booklet's cover design and format were pretested on a group of cancer patients and were found to be most acceptable by the test individuals in comparison to other possible choices. Order code #4518 from the Indiana Division, ACS, 317-257-5326.

Breast Reconstruction

The American Society of Plastic and Reconstructive Surgeons, Inc. has permitted the ACS to print and distribute a booklet titled "Breast Reconstruction Following Mastectomy." The booklet was designed to give a patient an insight into the ethical practice of plastic surgery, to acquaint her with the benefits and to advise her of the problems that might be encountered in breast reconstruction.

The booklet addresses such questions as: What is breast reconstruction? Should I see a plastic surgeon before my mastectomy? Who can have a breast reconstruction? How soon after my mastectomy can my breast be reconstructed? Can a breast be reconstructed after postoperative radiation therapy? Can complications occur after breast reconstruction? How will I look? Will my breasts match? How many reconstructive procedures will be necessary?

This booklet is available through the Indiana Division of ACS, 317-257-5326.

1983 LEGISLATIVE SUMMARY

Report of the ISMA Commission on Legislation



PAUL J. WENZLER, M.D.
Bloomington
Chairman
Commission on Legislation

The following is a summary of health-related measures signed into law during the 103rd Session of the Indiana General Assembly. Copies of these bills, as enacted, can be obtained through the county clerk's office in your county seat or through the ISMA office.

SB 124 Insanity Cases (Effective: Sept. 1, 1983): New language amended into SB 124 would permit a court to appoint two mental health experts (only one of whom must be a psychiatrist) to testify concerning a person's mental condition, in a court of law. Psychologists and physicians who are not psychiatrists could be appointed to serve in this capacity.

SB 171 Drunk Driving (Effective: June 1, 1983): SB 171 was the product of Governor Orr's task force on drunk driving and recodifies the drunk driving law making certain changes in the drunk driving statute. Under SB 171, anyone who operates a motor vehicle with .10% or more by weight of alcohol in his blood will be committing a Class A misdemeanor. The court shall recommend that such a person have his driving license suspended for a fixed period of not less than 90 days nor more than two years. Provisions under SB 171 would also require a 60-day minimum sentence for anyone who operates a vehicle after his license has been suspended for drunk driving.

SB 172 Child Passenger Restraint Law (Effective: Jan. 1, 1984): SB 172 states that all children less than three years of age must be secured in a child passenger restraint system when being transported in a motor vehicle (does not include school bus, taxi, rental car, or public transportation). A child who is three or four must be secured by a child passenger restraint system or a seatbelt. SB 172 was also amended to require all persons 18 years of age or younger who operate or are a passenger on a motorcycle to wear protective headgear.

SB 346 Health Planning and Governing Boards (Effective: July 1, 1983): SB 346 contains language concerning health planning and gives the Indiana State Board of Health the authority to assess the health needs of the citizens and communities of this state and plan programs and activities which can be developed to meet these needs. SB 346 establishes criteria by which such proposed projects should be given consideration. SB 346 also amends the Indiana Code to require hospital governing boards to report to the Indiana Medical Licensing Board any disciplinary action taken by a hospital governing board against a physician. A hospital governing board would also be granted immunity from civil liability for making such reports.

SB 373 Abortion Notification Penalty (Effective: June 1, 1983): SB 373 changes the penalty for failure to provide notification when performing an abortion on a minor. SB 373 makes failure to provide notification a Class A misdemeanor rather than a Class C felony for a person who knowingly or intentionally performs an abortion on a minor without providing prior notification to the minor's parents or legal guardian. This law reduces the sentence of two to eight years for a Class C felony, to a one year maximum sentence and fine of up to $5,000.

SB 418 Baby Doe (Effective: June 1, 1983): SB 418 amends the Indiana Code to further define a child in need of ser-

vices. Language of SB 418 further defines a child in need of services to include handicapped children who are deprived of nutrition that is necessary to sustain life, or who have been deprived of medical or surgical intervention that is necessary to remedy or ameliorate a life-threatening medical condition, if the medical or surgical intervention is generally provided to similarly situated handicapped or non-handicapped children.

SB 484 Operator of Radiation Machines (Effective: Upon passage): SB 484 regulates who may operate a radiation machine and what level of training and experience a person must possess to operate such a machine. SB 484 makes provisions for the *grandfathering* of all radiological technicians who provide satisfactory evidence to the board that they were actively employed as radiation machine operators for at least 48 months between the six-year period of Jan. 1, 1978 and Dec. 31, 1984. SB 484 also requires that radiation machines be inspected at least once every two years.

HB 1001 Health Care Costs/Financial Disclosure (Effective: Upon passage): HB 1001 requires hospitals to file with the Indiana State Board of Health a report indicating the following:

1. copy of the facility's balance sheet
2. copy of the facility's income statement
3. statement of changes in financial position
4. statement of changes in fund balance
5. accountant notes pertaining to the report
6. copy of the facility's report required to be filed under federal statutory law.

Beginning Dec. 31, 1984, hospitals will be required to file and report the following:

1. number of discharges by patient diagnosis
2. average patient length of stay by patient diagnosis
3. preoperative preparation time by surgical procedure
4. total charges per stay by patient diagnosis as broken down by:
   a. daily service charge
   b. ancillary service charges
5. net patient revenue.

The Indiana State Board of Health must open these reports to public inspection. HB 1001 also provides for the creation of a hospital prospective payment study commission consisting of 17 members which will do the following:

1. study prospective payment system for hospital costs
2. study cost differences among all payers
3. study impact of federal policy and budget changes concerning Medicaid and Medicare
4. assess the relationship between rate setting alternatives
5. study the role of alternative health care delivery systems.

HB 1025 Misrepresenting Oneself to a Health Care Provider (Effective: Sept. 1, 1983): HB 1025 makes it unlawful for anyone to permit another person, who was not entitled to a benefit, to use his benefit identification card to obtain such a benefit. This includes misrepresenting oneself to a health care provider, or the intent to defraud the provider of health care insurance of health care benefits.

HB 1118 Eye Enucleation (Effective: Sept. 1, 1983): HB 1118 concerns anatomical gifts and eye enucleation. HB 1118 makes a provision for who may enucleate eyes. Under this bill, any person who is registered with the Indiana State Board of Health as an eye enucleator may perform this procedure. An applicant for registration as an eye enucleator must submit evidence that he has successfully completed a training program in the enucleation of eyes which has been approved by the Indiana State Board of Health.

HB 1151 Patient's Access to X-Rays (Effective: Upon passage): HB 1151 provides that, upon a patients' written request and upon reasonable notice, a provider shall at his actual cost, provide to the patient or the patient's designee, access to or a copy of the patient's film possessed by that provider.

HB 1253 Repeal of Tuberculosis Law (Effective: Sept. 1, 1983): HB 1253 repeals two sections of the Indiana Code which require the testing of school children for tuberculosis. Repealed is the requirement that a child who enrolls in kindergarten or first grade in a school corporation for the first time be requested to furnish written evidence that he has been tested for tuberculosis. Also repealed is the requirement that governing bodies for each school corporation file a written report indicating those children who have received such a test.

HB 1269 Patient's Access to Medical Records (Effective: Upon passage): HB 1269 increases and facilitates patients' access to their medical records. Under this law, upon written request and upon reasonable notice, a provider shall supply the patient with the health records possessed by that provider concerning the patient. HB 1269 does not authorize a patient to obtain a copy of his records while he is an inpatient of a hospital. However, a patient's spouse, guardian, or next of kin is entitled to receive a copy of the health records of an inpatient. HB 1269 also makes provisions for insurance companies who need medical records required for processing claims.

HB 1442 Health Care Provider Peer Review Committees (Effective: Upon passage): HB 1442 allows the governing board of a hospital or professional health care organization to disclose to the peer review committee of a hospital or other health facility, the disciplinary authority or the professional organization of which the professional health care provider in question is a member, or the Indiana State Board of Registration or Licensure the final action taken with regard to a professional health care provider without violating the provision that all proceedings of peer review committees are to be kept confidential. Under this law a professional health care provider under investigation in a hospital is entitled to only one evidentiary hearing before a peer reviewing committee of the medical staff and one additional hearing of appeal before the governing board of the hospital.

I.U. FORUM

Some things change. . .



The "I.U. Forum" is a new addition to THE JOURNAL and is generated by the medical students on the Editorial Board. Its intent is to present different topics and events concerning Indiana University Medical School and also to highlight how some things are rapidly changing versus those holding fast to the bonds of conservatism.

Some subjects we will be covering include: curriculum changes and advancement, a new first year elective program and orientation process, as well as some interesting medical school trivia. We would greatly appreciate feedback and ideas on specific areas of interest to physicians concerning past and present affairs at the Indiana University School of Medicine.

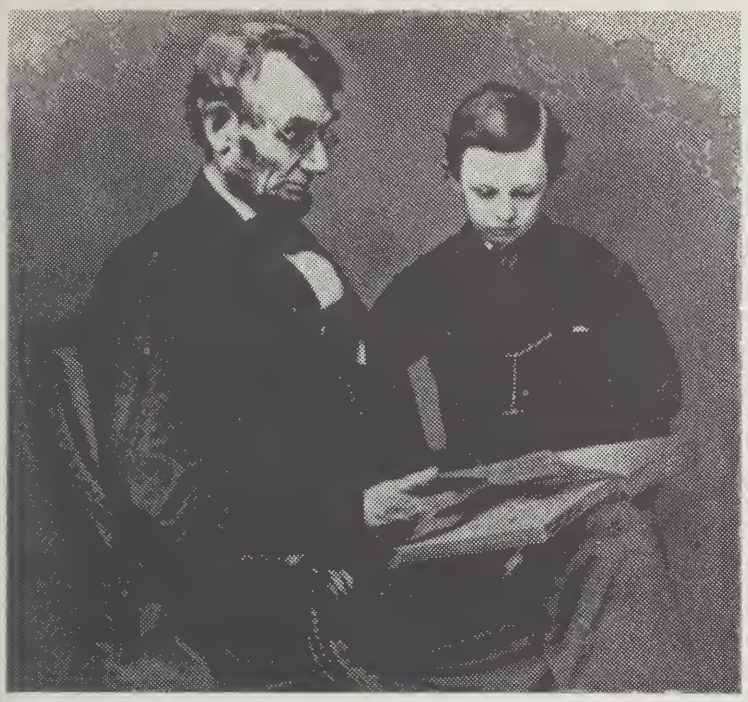
We thank THE JOURNAL for providing this opportunity for student input.

In closing, we would like to pay special tribute to Dr. Steven Beering, dean of the Indiana University School of Medicine since 1974, who assumed the presidency of Purdue University on July 1. At his last meeting with the Medical Student Council, Dr. Beering shared some of his thoughts regarding his position as dean of the I.U. School of Medicine and his new role as president of Purdue University. He feels three major achievements over the past decade have been the implementation of the successful decentralized statewide medical education program, the centralization of efforts of the many faculty and staff members at the six campus hospitals in teaching and delivering quality health care, and the recognition of Indiana University as a well known and highly regarded medical school due to the "team effort" of distinguished professors, researchers, physicians and medical students.

In regards to his goals as the new president of Purdue University, Dr. Beering wishes to combine the efforts of Purdue University and Indiana University in approaching legislature and stimulating Indiana's economy, at the same time maintaining the identity of each school and "still fighting like #*@! on the athletic fields." Along with his new responsibilities, Dr. Beering will continue in his position as professor of medicine at the medical school in Indianapolis. We wish to express our sincere thanks to Dr. Beering and best wishes in his future endeavors.

. . .some things don't





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ZYLOPRIM® (allopurinol) IS SIMPLE, EFFECTIVE GOUT THERAPY

Unlike uricosuric agents, Zyloprim® (allopurino is clearly the choice for:

OVERPRODUCERS/ UNDEREXCRETERS

"One recent suggestion is that overproducers of uric acid are more 'appropriately' treated wit allopurinol and underexcreters with uricosuric drugs. Such an argument is superficially attractive but may be specious: most patients with gout... may nevertheless be managed perfectl well with allopurinol."[1]

—G. Boss, MD et a

TOPHI, CALCULI, RENAL DISEASE

"... (1) patients with extensive tophaceous disease...; (2) patients with a history of renal calculi... since a uricosuric drug may exacerbate renal stone disease; and (3) patients with significant renal disease... who are unlikel to respond to a uricosuric drug."[2]

—Edward W. Holmes, Jr, M

For information on adverse reactions, warnings, etc, please see brief summary of prescribing information below.

ZYLOPRIM® (allopurinol)
100 and 300 mg Scored Tablets

INDICATIONS AND USE: This is not an innocuous drug and strict attention should be given to the indications for its use. Pending further investigation, its use in other hyperuricemic states is not indicated at this time.
Zyloprim® (allopurinol) is intended for:
1. treatment of gout, either primary, or secondary to the hyperuricemia associated with blood dyscrasias and their therapy;
2. treatment of primary or secondary uric acid nephropathy, with or without accompanying symptoms of gout;
3. treatment of patients with recurrent uric acid stone formation;
4. prophylactic treatment to prevent tissue urate deposition, renal calculi, or uric acid nephropathy in patients with leukemias, lymphomas and malignancies who are receiving cancer chemotherapy with its resultant elevating effect on serum uric acid levels.

CONTRAINDICATIONS: Use in children with the exception of those with hyperuricemia secondary to malignancy. The drug should not be employed in nursing mothers.
Patients who have developed a severe reaction to Zyloprim should not be restarted on the drug.
WARNINGS: ZYLOPRIM SHOULD BE DISCONTINUED AT THE FIRST APPEARANCE OF SKIN RASH OR ANY SIGN OF ADVERSE REACTION.
In some instances a skin rash may be followed by more severe hypersensitivity reactions such as exfoliative, urticarial and purpuric lesions as well as Stevens-Johnson syndrome (erythema multiforme) and very rarely a generalized vasculitis which may lead to irreversible hepatotoxicity and death.
A few cases of reversible clinical hepatotoxicity have been noted and in some patients asymptomatic rises in serum alkaline phosphatase or serum transaminase have been observed. Accordingly, periodic liver function tests should be performed during the early stages of therapy, particularly in patients with pre-existing liver disease.
Patients should be alerted to the need for due precautions when engaging in activiti where alertness is mandatory.
Occasional cases of hypersensitivity have been reported in patients with renal compromise receiving thiazides and Zyloprim concurrently. For this reason, in this clinical setting, such combination should be administered with caution.
In patients receiving Purinethol® (mercaptopurine) or Imuran® (azathioprine), the concomitant administration of 300-600 mg of Zyloprim per day will require a reduction in dose to approximately one-third to one-fourth of the usual dose of mercaptopurine or azathioprine. Subsequent adjustment of doses of Purinethol or Imuran should be made on the basis of therapeutic response and any toxic effects.
Usage in Pregnancy and Women of Childbearing Age:
Zyloprim should be used in pregnant women or women of childbearing age only if the potential benefits to the patient are weighed against the possible risk to the fetus.
PRECAUTIONS: Some investigators have reported an increase in acute attacks o gout during the early stages of allopurinol administration, even when normal or subnormal serum uric acid levels have been attained.
It has been reported that allopurinol prolongs the half-life of the anticoagulant, dicumarol. This interaction should be kept in mind when allopurinol is given to patients already on anticoagulant therapy, and the coagulation time should be reassessed.
A fluid intake sufficient to yield a daily urinary output of at least 2 liters and the maintenance of a neutral or, preferably, slightly alkaline urine are desirable to (1) avoid the theoretic possibility of formation of xanthine calculi under the influence of Zyloprim therapy and (2) help prevent renal precipitation of urates in patients receiving concomitant uricosuric agents.
Patients with impaired renal function require less drug and should be carefully

The most important therapeutic measure is
ne administration of a drug which will block
rate synthesis. The agent available at present is
llopurinol (Zyloprim . . .) which is very effective
nd of low toxicity."[3]

—Alfred Jay Bollet, MD

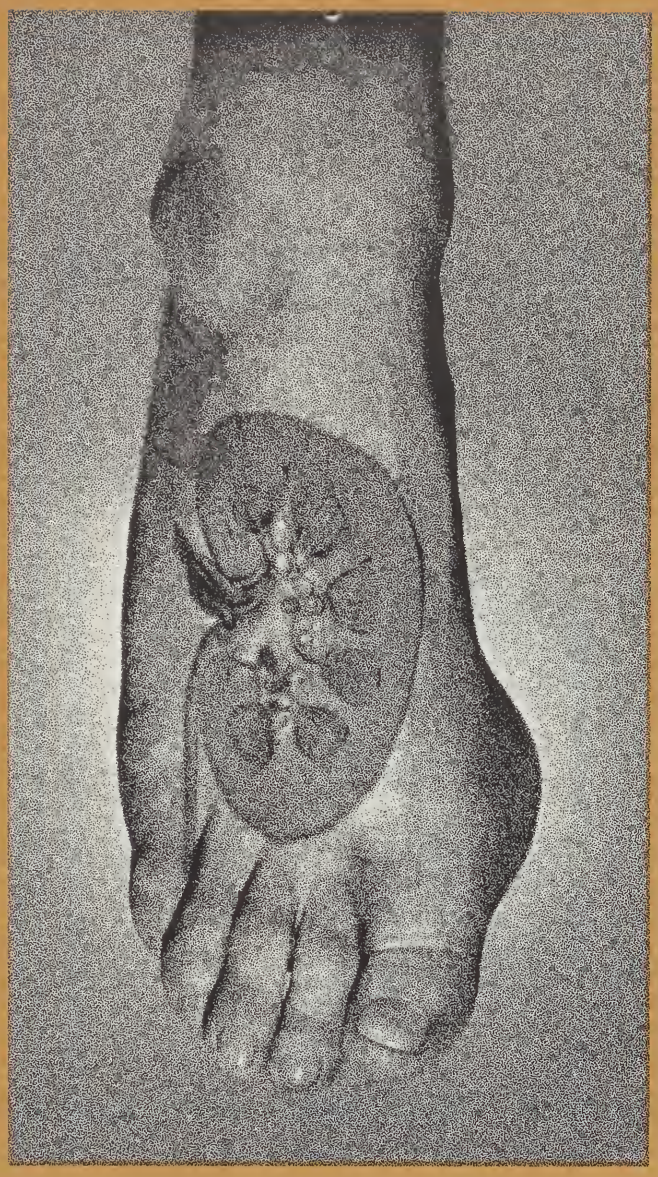
. . . allopurinol treatment appears to retard the
rogression of renal dysfunction."[4]

—T. Gibson, MD et al

LOW INCIDENCE OF TOXICITY

Clinical experience with allopurinol suggests
iat most patients tolerate this drug well—a
nding strongly supported by our data.
ndesired or unintended effects of therapy
ere reported in only 1.8% of 1835 consecutive
cipients."[5]

—G. T. McInnes, MD



Boss G, et al, quoted by Scott JT: Long-term management of gout and peruricemia. *Brit Med J* 281:1164, 1980.

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erved during the early stages of Zyloprim administration and the drug withdrawn creased abnormalities in renal function appear.

atients with severely impaired renal function, or decreased urate clearance, the -life or oxipurinol in the plasma is greatly prolonged. Therefore, a dose of 100 mg day or 300 mg twice a week, or perhaps less, may be sufficient to maintain quate xanthine oxidase inhibition to reduce serum urate levels. Such patients uld be treated with the lowest effective dose, in order to minimize side effects.

d reticulocytosis has appeared in some patients.

iodic determination of liver and kidney function and complete blood counts should erformed especially during the first few months of therapy.

VERSE REACTIONS:

matologic: Because in some instances skin rash has been followed by severe ersensitivity reactions, it is recommended that therapy be discontinued at the sign of rash or other adverse reaction (see WARNINGS). Skin rash, usually ulopapular, is the adverse reaction most commonly reported. The incidence of rash may be increased in the presence of renal disorders.

oliative, urticarial and purpuric lesions, Stevens-Johnson syndrome (erythema (forme) and toxic epidermal necrolysis have also been reported.

w cases of alopecia with and without accompanying dermatitis have been orted.

me patients with a rash, restarting Zyloprim (allopurinol) therapy at lower doses been accomplished without untoward incident.

trointestinal: Nausea, vomiting, diarrhea, and intermittent abdominal pain have n reported.

atic: Rare cases of granulomatous hepatitis and hepatic necrosis have been orted.

ular: There have been rare instances of a generalized hypersensitivity vasculitis ecrotizing angiitis which have led to irreversible hepatotoxicity and death.

Hematopoietic: Agranulocytosis, anemia, aplastic anemia, bone marrow depression, leukopenia, pancytopenia and thrombocytopenia have been reported in patients, most of whom received concomitant drugs with potential for causing these reactions. Zyloprim has been neither implicated nor excluded as a cause of these reactions.

Renal: Rare cases of renal failure have been reported in hypertensive patients who received thiazides and Zyloprim concurrently. Some patients had evidence of hypersensitivity to allopurinol.

Neurologic: There have been a few reports of peripheral neuritis occurring while patients were taking Zyloprim. Drowsiness has also been reported in a few patients.

Ophthalmic: There have been a few reports of cataracts found in patients receiving Zyloprim. It is not known if the cataracts predated the Zyloprim therapy. "Toxic" cataracts were reported in one patient who also received an anti-inflammatory agent; again, the time of onset is unknown. In a group of patients followed by Gutman and Yü for up to five years on Zyloprim therapy, no evidence of ophthalmologic effect attributable to Zyloprim was reported.

Drug Idiosyncrasy: Symptoms suggestive of drug idiosyncrasy have been reported in a few patients. This was characterized by fever, chills, leukopenia or leukocytosis, eosinophilia, arthralgias, skin rash, pruritus, nausea and vomiting.

OVERDOSAGE: Massive overdosing, or acute poisoning, by Zyloprim has not been reported.

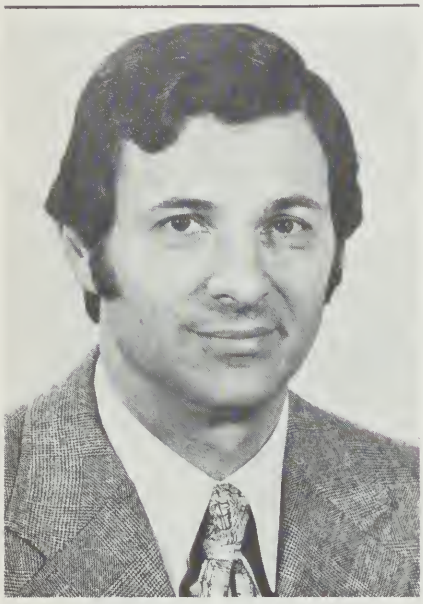
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Safety of Diagnostic Ultrasound

Guest Editorial



HARVEY FEIGENBAUM, M.D.
Indianapolis

THE HISTORY OF medicine is filled with diagnostic and therapeutic measures that were initially thought to be harmless, then ultimately proved to have serious side effects. Probably the best example is the use of x-ray to visualize internal structures of the body. Early investigators felt that since the rays were invisible and painless they must also be harmless. Unfortunately, their early optimism proved to be erroneous, and the hazards of ionizing radiation are now well known.

The possible side effects of therapeutic agents and drugs are accepted and tested prior to introduction to the market place. Despite our best efforts, we will still occasionally learn only with time that a drug was more toxic than originally thought. With all of the recently recognized side effects of aspirin, it is seriously questioned how easily such a drug would get through the Federal Drug Administration today.

With the rapid growth in technology, medicine is being bombarded with numerous new procedures and modalities. Possibly the most striking advances have been in medical imaging. There have been tremendous developments using both ionizing and non-ionizing energy for visualizing internal organs. The risks of ionizing radiation are readily recognized because of our extensive experience with such energy. Both diagnostic and therapeutic radiation have recognized hazards, and physicians use these modalities knowing these limitations.

Diagnostic ultrasound is one of the new technologies that has had tremendous impact in medical diagnosis, and the question of safety now arises. Knowing the history of ionizing radiation, there is an obvious concern that this seemingly innocuous diagnostic modality may again prove to be toxic with extensive use or with the passage of time. The use of ultrasound for medical diagnoses was developed after World War II and has been widely used throughout the world for the past 25 to 30 years. Because the medical uses of this energy source involve examining very sensitive tissues, such as the unborn fetus and the eye, there has been extensive research attempting to understand the biologic effects of ultrasound.

First of all, it would be a mistake to assume any similarities between ultrasound and ionizing radiation. The energy sources are totally different and the biologic effects are not related at all. In addition, the range in energy dosage is much broader with ultrasound. The difference in energy between the ultrasound that is used to clean jewelry and that which is used to image internal structures is very large. The amount of ultrasonic energy used for diagnostic purposes is about one hundred times less than the intensity of ultrasound used for therapeutic purposes in physical medicine. In fact, therapeutic ultrasound has been used longer than diagnostic ultrasound, and this form of therapy enjoys an amazingly good safety record.

Another important difference between ultrasound and ionizing radiation is the fact that ultrasound is literally sound. It is no different than audible sound other than for its higher frequency. In many respects, one can best understand sound and ultrasound if it is compared to light. Light is obviously a very important source of energy that permits us to visualize our environment.

Although various forms of light can be

The author, a Distinguished Professor of Medicine, is Senior Research Associate, Krannert Institute of Cardiology, Indiana University School of Medicine, Indianapolis.

exceedingly harmful, such as excessive ultraviolet rays or even laser beams, the difference in energy between a laser beam and that which comes from an incandescent light bulb is tremendous. Thus, although we do not have any firm data proving that diagnostic ultrasound at the currently used energy levels cannot possibly be harmful in any way, the available information supports the probability that ultrasound in the intensities currently used for diagnostic purposes is quite safe.

There are numerous biologic effects that can be produced with various applications of ultrasound. Most of these effects are physical, one of which is the formation of heat. The therapeutic uses of ultrasound rely upon these biologic effects. Investigators have attempted to study whether ultrasound as used diagnostically can also produce deleterious effects. Although some changes in suspended cells and in various animal models have been noted, none of these studies have come close to simulating the manner in which ultrasound is used clinically. In fact, there is very little experimental evidence to indicate that clinically used diagnostic ultrasound produces any detrimental biologic effects.

Although diagnostic ultrasound has not had the lengthy experience that has been present with ionizing radiation, we do have at least 25 years of clinical experience in literally millions of patients all over the world. To date, no confirmed untoward reaction has been recognized by authorities in the field.

Thus, from a safety point of view, the widespread use of diagnostic ultrasound appears to be justified. Although one will probably never be able to say with 100% certainty that there will never be some serious side effect from this diagnostic modality, the state of our knowledge dictates that the benefit:risk ratio is extremely favorable.

Obviously, no procedure, no matter how innocuous, should be abused or overused. There are many important reasons why only well trained, knowledgeable individuals should be using this diagnostic tool. In addition, since there will always be some lingering concern as to some possible, as yet undiscovered, detrimental biologic effect, one should use discretion and common sense and avoid totally indiscriminate use of ultrasonic examinations.

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Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	CO-TRIMOXAZOLE	**CLOTRIMAZOLE**
Category:	Anti-infective	Antifungal
Brand Name:	Bactrim, Roche	Lotrimin, Schering
	Septra, BW	Mycelex, Dome
Generic Name:	Co-Trimoxazole	Clotrimazole
Dosage Forms:	Tablets, Suspension, Infusion	Cream, Solution
	UREX	**EURAX**
Category:	Urinary anti-infective	Scabicide
Brand Name:	Urex, Riker	Eurax, Westwood
Generic Name:	Methenamine Hippurate	Crotamiton
Dosage Forms:	Tablets	Cream, Lotion

Estrogen Replacement Therapy: A New Era

Guest Editorial



HANS E. GEISLER, M.D.
Indianapolis

The author is director, Division of Gynecologic Oncology, Dept. of Obstetrics and Gynecology, St. Vincent Hospital and Health Care Center, Indianapolis.

Correspondence: 2001 W. 86th St., Indianapolis, Ind. 46260.

WITH THE OBVIOUS SHIFT in age of the population of the United States from one that is composed mainly of the young to one that has a constantly growing percentage of the middle aged and elderly, the medical care, both preventive and active, of this older group of patients becomes increasingly important.

Professionals in the health care industry and related fields must do everything possible to ensure that, not only is the life span of our citizenry lengthened, but that quality of that life is continually improved. Only then, can the elderly truly enjoy the additional years they have been given and will be given by the advances made in medicine in this century and the century to come.

Those physicians who are responsible for the care of the post-menopausal female have an obvious contribution to make in helping improve the quality of life of their patients.

Recent estimates indicate that at least four million people in the United States have osteoporosis to a significant degree. Most of these people are elderly and 80% of them are women. Put another way, about 25% of postmenopausal women will develop osteoporosis. The seriousness of this problem is highlighted by the fact that the risk of hip fractures among females past the menopause may reach 20% or more.

About 80% of hip fractures occur in patients over 60 and 85% of this group are women. In a collated series totalling 10,978 hip fractures, the mortality rate was 13.2%. It was further estimated that in 1975, more than 132,000 women would suffer hip fractures. By extrapolation, it becomes obvious that at least 17,500 of these women died of the complications associated with those hip fractures. We now have convincing evidence that the use of estrogens in conjunction with exercise and good dietary habits in the postmenopausal female, who shows signs of estrogen deficiency, can retard and probably prevent the onset of osteoporosis. However, we also know that the continuous use of estrogens unopposed by progesterone has led, in a significant number of cases, to the development of endometrial carcinoma.

Nevertheless, we must contrast the ever increasing number of patients with endometrial cancer with the increasing number of patients with osteoporosis occurring because of the natural aging of our population. It is interesting that, even though the number of cases of endometrial cancer has risen from approximately 29,000 per year in the late 1970s to 38,000, projected by the ACS for 1983, the number of deaths from endometrial cancer has not increased and is still about 3,100 per year.

This means that 80% fewer women will die of endometrial cancer, of which only a small fraction can be associated with the uninhibited use of estrogens, than from hip fractures occurring as a direct result of osteoporosis.

Some evidence is now coming to light which indicates that women who use estrogen postmenopausally have lower mortality rates than nonusers. This may be due to the ability of estrogen to raise blood levels of high-density lipoprotein cholestrol or maybe just to the fact that estrogen users have more health oriented behaviors than nonusers.

Naturally, not all postmenopausal women need exogenous estrogen therapy. However, most who suffer symptoms of estrogen lack, such as flashes, flushes, vaginal atrophy, insomnia and night sweats, should be treated before they undergo possibly more catastrophic effects, such as demineralization of their bones.

Strict criteria must be followed when the postmenopausal woman is given estrogens. The physician in charge of the patient's hormonal therapy should obtain an endometrial sampling before such treatment is initiated and at six to 12 month intervals thereafter, as long as the therapy is continued. The exogenous estrogen should be administered in a cyclic fashion for 21 to 25 days of the month. A potent progesterone such as medroxyprogesterone or megestrol acetate should be given for the last 10 days of the estrogen therapy. This combination has been shown to be effective in preventing the development of endometrial cancer in the patient with an intact uterus.

Whether progesterone should be given during the last 10 days of estrogen therapy in those women who have had a hysterectomy is an issue which is not settled at this time. Certainly, a physician who chooses this course could not be faulted for his diligence and concern.

Those patients who should not receive estrogen are those who are markedly obese, diabetic, hypertensive, have coronary artery disease, have a history of thrombophlebitis, have large uterine leiomyomata or who smoke more than just an occasional cigarette.

The era when all women are given estrogen replacement therapy has ended. A pharmacologic and physiologic era of estrogen replacement has begun. At a time when preventive medicine is being emphasized it behooves us to help our female patients with good advice and rational therapeutic protocols.



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The Institutionalized Child

Guest Editorial



CRAIG SPENCE, M.D.
Knightstown

INSTITUTIONALIZATION of youth in Indiana goes further than the confines of corrections and mental health. The state is directly responsible for a large population of developmentally disabled youth, handicapped, and "normal" boys and girls displaced from their original environment by circumstances beyond their control. County welfare agencies, juvenile courts, and child placement bureaus sometimes refer children and adolescents to large, residential institutions where they can "grow-up" in a safe, educational "home." Many of these "displaced" youths, victimized by divorce, neglect and family disarray, are often shuttled between foster homes, half-way houses and smaller, residential facilities. Such "shuttle" phenomena can intensify feelings of isolation, significantly contribute to depression, or culminate in conduct disorders, poor school performance, and delinquent behavior.

Having personally dealt with hundreds of such "throw-away kids," I am impressed with their adjustment to complex psycho-social problems and feelings of helplessness. The large, residential institution is too often the end of the line, after as many as a dozen other placement failures. Many youngsters—preschool to adolescent—adapt extremely well to the residential "home,"finally feeling "safe" after suffering years of neglect and abuse.

Indiana Department of Public Welfare statistics found 7,975 substantiated cases of child neglect in 1982, 896 of whom were placed "out of the home." A large number, 2,399, received only short-term supervision and an additional 1,343 entered into family counseling. The long-range effects of such protective intervention are still unknown. But the rising rate of home violence, school drop-out, and delinquency suggests that aggressive intervention is desperately needed to save these youngsters from tragic environments.

In some Indiana institutions 50-60% or more of the children had experienced sexual or physical abuse prior to arrival, not altogether surprising, as such child-care institutions often house the most troubled children. A recent report revealed that more than half of American children live in a home with one or both parents missing (approximately 13 million). Over the past four decades, a vast body of research has shown that absence of a parent through death, divorce, or a time-demanding job contributes to many forms of emotional disorders, especially anger, rebelliousness, low self-esteem, depression, and anti-social behavior.

And in many instances, placement within the framework of a child-care institution has not only been more suitable, but distinctly preferable, allowing for vocational and academic achievements and social adjustments untenable otherwise.

In 1982, 8,864 children were wards of the Indiana Department of Public Welfare. Only 1,258 of these were assigned to residential child care institutions. What factors determine the placement in the institution setting?

First, there are many displaced youngsters who simply fail within the framework of the traditional family. Bonding to non-biological and even biological "parents" is not an automatic phenomenon for all children. Acting out, intra-family rivalry and anti-social behavior frequently lead to serious family disruption with the child, more often than not, the scapegoat.

Second, environmental and economic

The author, who practices Family Medicine in Knightstown, Ind., is a consultant, Division of Maternal and Child Health, Indiana State Board of Health.

deprivation causes family despair, psychological neglect and improper supervision, a chain of events contributing to delinquency and school truancy. The violence-neglect-abuse profile thus develops and out-of-home placement becomes the final solution.

In my experience, youngsters first coming to the residential "home" often are clinically depressed, reflecting intense feelings of isolation, rejection, and worthlessness. Most have been shuffled from court-rooms, jails, detention centers and "foster" placements, with a non-existent support system.

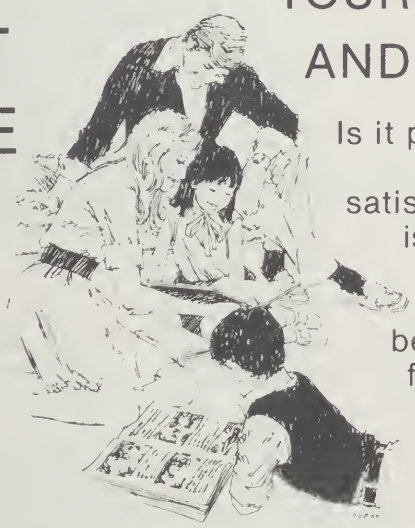
Many, following years of abuse and neglect, feel they have somehow caused their family's difficulties and suffer considerable guilt. Institutional "houseparents," supervisors and social workers deal with small groups of children to provide individual attention and guidance, facilitating a gradual reduction in such guilt and fear.

What leads to successful adjustment within the residential institution? In fact, a small percentage simply fail to adjust, particularly those with established characterologic disorders and severe conduct disorders. The vast majority, however, find refuge with peers from similar backgrounds. The large group enables common-experience friendships to develop readily. Incest, for example, is traditionally associated with severe isolationism and fear. Such a child learns quickly that he or she is not alone. The peer group influence in concert with professional counseling is therapeutic.

Depression, more common in children than previously recognized, seems to improve dramatically with structured activities, supervision, and delegated responsibility. But adjunctive professional counseling certainly must be provided. Undisciplined, behaviorally unskilled youngsters respond effectively to close supervision and multiple educational and recreational activities—resources available in the large, residential care setting.

Improved outlooks and skills development are the by-products of Indiana's child care institutions. Family violence is a growing public health enemy. It is unfortunate that young victims of the fractured family are subjected to an endless array of "placements." Welfare workers, judges, and social service agencies need to heighten their awareness of the child care institution as it relates to Indiana's needs, and make the health and safety of our vulnerable, neglected youth a priority.

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AUXILIARY REPORT

Hulda Classen (Mrs. Peter)
President, ISMA Auxiliary

Frances R. Troyer
Goshen

In February 1982 a new volunteer program came into being at Goshen (Ind.) General Hospital. H.E.L.P. (H-ospital E-mergency L-ifeline P-rogram) is a personal response system designed for people who are socially isolated or medically vulnerable. With H.E.L.P. such people can live independently and feel confident that they will be helped if an emergency occurs. At the press of a button, this emergency response system can be activated. It keeps isolated individuals in 24-hour-a-day contact with our hospital's emergency services.

H.E.L.P. is simple to use. The system's equipment for an individual includes a unit that is attached to the home phone and a small, wireless, pushbotton transmitter that can be worn on the wrist, carried in a pocket, worn about the neck as a pendant, or clipped on a belt. When a H.E.L.P. subscriber needs assistance, he/she pushes the transmitter button, triggering the telephone unit to send a signal through the phone line to the base unit located at Goshen Hospital's switchboard. When the emergency signal comes in, our operator refers to a card which lists vital information about that subscriber. She then dials the home telephone of the person calling in. If there is no answer, a responder (one of several close neighbors or nearby relatives) is then called. The base unit is monitored until a responder signals that he/she has arrived in the home where the problem is. If further assistance is needed, help can be dispatched.

H.E.L.P. is easy to use because the subscriber doesn't have to dial a telephone. It works even if the phone or an extension is off the hook. The home unit includes a timer which is set on a 24-hour basis and is automatically reset every time the telephone is used. If the time expires and the phone has not been used, H.E.L.P. automatically calls the hospital and starts the emergency response. In case of a power interruption, the unit will remain active for 48 hours. A volunteer from the hospital makes monthly calls to all subscribers to check the system to insure that the unit remains in proper working order.



Mrs. Troyer is an R.N. whose husband, Dr. G. Weldon Troyer, is an Ob-Gyn specialist. She serves as director of volunteers for the H.E.L.P. program at Goshen General Hospital.

Our Goshen Hospital Foundation has purchased H.E.L.P. equipment so the individual subscriber's charge is only $10 per month, payable every three months. The cost of each unit is $500. In some instances where private lines need to be installed, service charges will need to be absorbed by the subscribers or their family. Another cost may be the purchase of a device which assures a dial tone for the subscriber who has more than one telephone.

Goshen Hospital joins 140 hospitals across the country in providing this relatively new service, which began in 1979. "Lifeline Systems," located in Waltham, Mass., was founded by Dr. Andrew S. Dibner, associate professor of psychology, Boston University, an expert in the problems of the elderly. He was assisted by his wife, Dr. Susan S. Dibner, a sociologist, who was also involved in gerontology.

When this new system was introduced to our Hospital Foundation director, Laurie Hardie, she immediately felt excited about the possibilities this held for Elkhart County and surrounding communities. After I consented to work with Mrs. Hardie as director of volunteers, together we listed possible names of persons who might have interest in working with H.E.L.P.

As volunteers, we each have our designated duties to make the program function effectively. After the initial inquiry is made by the subscriber or his family, and an assessment is made of the need, I arrange for and see to the installation. We have nearly 60 units installed in Elkhart County and as far away as Milford and Bremen.

The reward for my efforts comes when the installed unit makes its first contact with our hospital switchboard to make sure it is functioning properly. To see the happy, satisfied look on the face of an elderly person who lives alone is reward enough. But when he/she exclaims with relief, "Now I don't have to worry about being alone anymore," I feel my volunteer hours have been well spent.

With the use of H.E.L.P., our growing number of senior citizens can maintain independence and dignity. It affords peace of mind for both the subscriber and his/her relatives. It can play a role in reducing the excessive use of nursing homes and/or it can shorten the person's hospital stay.

After one of the recent installations was completed, our elderly recipient commented, "I'm not afraid of *anything* anymore!" That states it well for most all of our subscribers.



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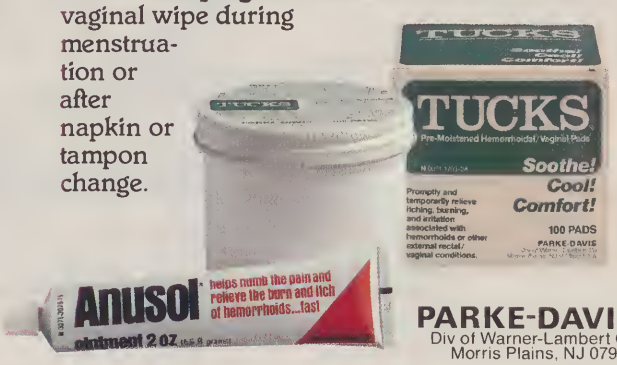
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Physician Wins Suit for Disability Insurance

Indiana Court Action

A physician was entitled to $800 per month in disability insurance payments for disability caused by radiodermatitis, an Indiana appellate court has ruled.

The physician, a general practitioner, applied for an occupational disability policy in 1966. He was accepted under a policy providing for monthly benefits of $800 in the event of disability. In February 1967, his hands became excessively dry and the skin began to crack. A dermatologist diagnosed the condition as radiodermatitis from excessive exposure to x-rays. He immediately ceased all work with x-rays, but the effects were irreversible. In 1969, an ulcer developed on the back of his hand. Medication healed the ulcer but substantial scar tissue remained.

In August 1970, and again in February 1972, the insurance company offered increased benefits. Both times the physician elected the increased coverage and notified the insurance company of his radiodermatitis. The company responded with a policy excluding from the increased benefits coverage of disability caused by the skin disorder.

Two fingers on his right hand had to be amputated in September 1972. He received benefits of $800 per month while he was not practicing. He closed his practice in December 1973, and was employed as a staff physician at a VA hospital in January 1974. His duties included treatment, examination, and diagnosis of patients, although he could not tolerate the scrubbing and cleansing process required for sterile procedures. He took a sick leave in the Summer of 1978.

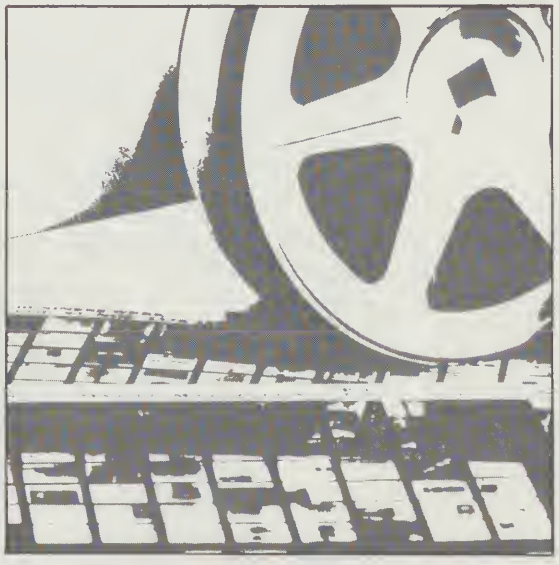
In April 1977, he filed suit against the insurance company for breach of contract for failure to pay the disability benefits to which he was entitled. A trial court awarded him $1,200 a month as long as he was disabled and denied punitive damages.

On appeal, the decision was modified and affirmed. The provisions of the later policies excluding increased coverage for disabilities caused by the skin disorder were applicable, the court said. Hence, $800 was the proper amount of each monthly payment. The court said that even though the physician was able to practice medicine in some capacity, he was disabled under the policy because he was unable to practice as a general practitioner. The court said he was also entitled to prejudgment interest on his judgment and remanded that issue for a calculation by the trial court.—

Continental Casualty Company v. Novy, 437 N.E.2d 1338 (Ind. Ct. of App., June 29, 1982)

Courtesy of *The Citation*, March 15, 1983.

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BOOK REVIEWS

Current Medical Diagnosis & Treatment 1983

Edited by M. A. Krupp, M.D. and M. J. Chatton, M.D. Copyright 1983, Lange Medical Publications, Los Altos, Calif. 1,130 pages, softcover, $24.

This book has been revised each year since it first appeared in 1962. Annual revision is especially praiseworthy in such an ever-changing subject as internal medicine. The editors emphasize that the text was prepared as a "useful desk reference" and not as a textbook of medicine. Certainly the volume serves its purpose admirably.

The 1983 edition has, of course, the same editors as the previous edition and, with a very few exceptions, the same contributing authors. The text is easy to read. The illustrations are not numerous but are quite adequate, as are the tables and charts. The appendix is of great utility, and the index appears complete. The binding is the usual attractive plastic-coated paper—touch and designed for the volume's use as a handbook.

W. D. Snively, Jr., M.D.
Evansville
Internal Medicine

Endocrine Pathophysiology: A Patient Oriented Approach

By Jerome Hershman, M.D. Copyright 1982, Lea & Febiger, Philadelphia. 316 pages, paperback, $13.50.

Dr. Hershman, chief of the Endocrinology Section of U.C.L.A. School of Medicine, has enlisted nine other U.C.L.A. faculty members and Allan R. Glass, M.D., of Walter Reed Army Medical Center in preparation of this small volume. It was written primarily for medical students. For that reason, practicing physicians, especially the older ones, may find this presentation of a complex subject, written with the presumption that the reader has a very limited background in the basics of the subject, of considerable value. It begins by explaining that endocrine disorders are mainly of two types—hyperfunction and hypofunction.

The various types of tests employed depend upon whether one suspects an over-supply or an under-supply of the various substances produced by the particular gland being studied. The tools include radioimmunoassay, radiorecepter assay, measure of the hormone effects on target tissue, stimulation and suppression tests, chemical measurements and bioassay. All these are selected and interpreted in light of the clinical findings in the patient. Each chapter ends with one or more case reports illustrating the particular contribution of each test employed.

This reviewer knows of no easy way of mastering the intricate interrelationships of endocrine function or the formidable battery of tests now available to sort them out. However, when confronted with a clinical situation suggesting a hormonal disorder, this compact, well organized volume will probably be more helpful than the accounts in the more comprehensive systems of medicine or even the larger texts on endocrinology.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Compliance in Health Care

By Haynes, Taylor and Sackett. Copyright 1979, Johns Hopkins University Press, Baltimore. 516 pages.

All practicing physicians are aware that their preventive and therapeutic efforts for patients are often frustrated by patients' failure to carry out orders. Compliance is, of course, up to the patient once the advice or prescription has been given. At the same time, physicians share this responsibility with those they serve.

The authors of this volume have conducted considerable sound research on the multiple causes of this dilemma. The various techniques they suggest resulting from these studies are worth considering. However, the *sine qua non*, as the authors agree, is mutual trust between physician and patient, engendered by a careful history and physical examination, with the physician taking the time to explain to the patient the reasons for the treatment he is advising.

It is unlikely that busy practitioners will take time to wade through the extensive data on the many techniques presented in this book. Even if most of the contents are merely skimmed over, the reader will find careful perusal of the chapters on Ethical Issues on Compliance and A Compliance Practicum for the Busy Practitioner of practical value.

One statement from the former chapter is worth quoting: "The deficient provider of medical care causes damage which is palpable (and liable) . . . Three serious sins can be attributed to the physician. The first is *carelessness*, the blameworthy failure to have the proper information about drugs and procedures, about the patient, and about the patient's social setting. The careless physician will fail to take reasonable efforts to educate and motivate. The second is *irrationality*, the prescription of medicines that are not appropriate for the illness and are inefficacious or harmful . . . Third, the *authoritarianism* to which physicians are often tempted can be a serious sin. Compliance, it seems, is best achieved in a "partnership of understanding."

This reviewer has found in his own practice that if more than a single medication or procedure is advised it is helpful to write out or type the instructions using a carbon copy for the patient's office record. This is especially important when the physician is having his final interview with a patient being discharged from the hospital.

We are all aware that no method of securing faithful compliance with physicians' orders is infallible. Perceptive physicians develop their own methods, often intuitively, to deal with the variety of personalities with which they are confronted. Lest we become too complacent with our own judgments, it is useful to consult a good text of this kind occasionally to learn what others deeply concerned about the problem are doing.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

AVI Publishing Company has released the second edition of *Food Oils and Their Uses*, by Theodore J. Weiss, Ph.D. The author's aim is to provide current, abridged technical information that is easily understood by students, food processors, plant operators and others. Technical information is included to aid researchers. The bibliography has been enlarged. $35.

Color Atlas of Hematological Cytology

By Hayhoe and Flemans. Copyright 1982, Wiley and Sons, New. York. 240 pages, 750 illustrations, $75.

I found this fascinating collection of micro-photographs hard to lay down. As the title indicates, it is not a textbook of hematology, but is an indispensable adjunct to such texts. Every blood cell type, normal and abnormal, is clearly portrayed, with legends explaining what to look for.

The material is divided into five main divisions: red cells and their precursors; granulocytes monocytes and megakaryocytes, lymphocytes, plasma cells and their derivatives and precursors in blood and bone marrow; miscellaneous cells from bone marrow or blood smears, reticuloendothelial cells, osteoclasts and osteoblasts, foreign cells and parasites; imprints of lymph nodes and spleen; cells from pleural, ascitic and cerebrospinal fluids.

Each section begins with a one-page description of the cells to be illustrated in the pages that follow and their significance in normal and disease states. The index makes it easy to find any particular cell type in which the reader is interested.

This atlas could logically be put on the library shelves where it could be used in connection with perusal of hematological texts. However, it will doubtless be more useful in the microscopy rooms of the laboratory. The atlas is sure to be used constantly by the pathologists and hopefully by practicing physicians as they go to consult them about their patients with hematological disorders.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Called to Heal: Releasing the Transforming Power of God

By Fr. Ralph A. DiOrio. Copyright 1982, Doubleday & Company, Inc., New York. 260 pages, hardcover, $14.95.

Reviewing an inspirational book of this type is a difficult task because as St. Thomas says—until I have seen the mark of the nails on his hands I will not be made to believe. In other words, I must be governed by what I consider a healthy, scientifically based skepticism. Nonetheless, many intelligent persons believe implicitly in faith healing and must be taken seriously. It seems that all faiths have these charismatic "physicians" wherein the "laying on of hands" is a vital function of healing.

Father DeOrio performs his ministry primarily in Worchester, Mass., and has written, in 14 chapters, the basic Christian and Roman Catholic theological tenets, which are uplifting spirtually and tend to reiterate the basic idea of Jesus as Savior and mediator for the sinful. There are seemingly endless ways to make this statement and their repetition reinforces the acceptance of the concept.

The reader may ask: "How does a 'faith healer' heal?" This book gives no direct answer but does mention biblical references of such activity and makes the general point that the healer is only a "conduit" of grace and, as such, must be devoid of personal pride to be good at it. The Cure d'Ars wrote a small book of devotion over 100 years ago called "The Imitation of Christ" which says it all and has something less of its author in its pages.

Father DiOrio's book is not for everyone, but no one would be less for reading it.

Rodney A. Mannion, M.D.
LaPorte
Urological Surgery

How to Write and Publish Papers in the Medical Sciences

By Edward J. Huth, M.D. Copyright 1982, ISI Press, Philadelphia. 203 pages, paperback $11.95, clothbound $17.95.

Everything you wanted to know about medical writing and more is contained in this book. The writer is editor of the *Annals of Internal Medicine*. It is full, packed down and brimming over with useful information on research, writing, publishing papers, books, editorials or even letters to the editor. Nineteen chapters, appendices and a good index are included. It is a quarto, 200-page volume in hard cover.

There are several especially practical sections. Chapter 2, "Searching the Literature," is a mine of information for the beginner. It includes techinques for using the National Library of Medicine Series (Index Medicus and Computerized Literature-Search Services of the National Library of Medicine), Science Citation Index, Excerpta Medica, and specialized indexes and abstract services. I enjoyed the chapters on revising content and structure, revising prose style (see page 102 on empty phrases and words and such examples as "accounted for by the fact that" replaced simply by "most" and so on), and scientific style. There's good information on the use of tables and graphs (only one per 1,000 words is the rule and the author may pay from his pocket for color plates).

I could go on interminably because each chapter is replete with vital facts for the author. Even the content of the accompanying cover letter to the editor is described. Every new or older medical author could use this book. It is eminently helpful and, as you would expect, well written.

Rodney A. Mannion, M.D.
LaPorte
Urological Surgery

Appleton-Century-Crofts has a new book, *The Fourth Trimester: On Becoming a Mother*, written by Brenda Eheart, specialist in child care, and Susan Martel, a psychotherapist, to aid new mothers through the "postpartum blues." The authors explain that women are not born mothers, they grow into the role, and need guidance with the unexpected responsibilities, tensions and fears. 223 pages, illustrated, $7.95.



"THAT ONE'S MY LAWNMOWER WARRANTY. I PUT IT UP TO SEE IF ANYONE REALLY NOTICES."

NEWS NOTES

$50,000 Cancer Grant

Armand Hammer, CEO of the Occidental Petroleum Corporation, who recently announced large monetary awards for cancer research, has given $50,000 to the Society of Surgical Oncology to permit one of its members each year to travel anywhere in the world to study the latest techniques in cancer surgery.

At the meeting in which he announced his Oncology gift, Dr. Hammer received the James Ewing Layman's Medal, a prestigious medical award presented yearly to an outstanding individual who has made significant contributions to the fight against cancer.

Blood Pressure Pamphlet

Searle Laboratories has made available one million copies of "High Blood Pressure—Facts and Fiction." The pamphlet supplies answers to such questions as: Is there a cure for high blood pressure? Are nervous and tense people more likely to have the disease? What blood pressure readings are normal?

Single copies are available by writing to High Blood Pressure Information Center, 120/80 National Institutes of Health, S. Bethesda, Md. 20205.

FTC Jurisdiction Clarified

The AMA and FTC have agreed to language in a document that would clarify the agency's jurisdiction over the state-licensed professions. The document is based on a number of proposals before Congress in the last session.

The joint AMA-FTC proposal would protect the traditional state licensure of professionals from FTC interference. State laws defining the scope of professional practice would not be within the FTC's jurisdiction. Professional activities taken under state law would also receive protection. The commercial activities of professionals would be subject to FTC scrutiny.

The proposal applies to licensed professionals such as physicians, lawyers, dentists, architects, nurses, veterinarians and engineers.

Home Care Favored

An article in a recent issue of *Pediatrics* reports that families of terminally ill children do much better if the child is allowed to die at home. Parents and siblings fared much better emotionally and interpersonally in the home scene as compared to a control group cared for in hospital.

Health Wall Chart

A sensible approach to healthful living is outlined and illustrated in a combination pamphlet/wall chart for use by health professionals and patients. The Mazola Nutrition Health Information Service will mail a free copy of "Feeling Better . . . Eating Better," a pamphlet/wall chart which includes information on shaking the salt habit, cutting down on sugar, exercising, eating more complex carbohydrates and cooking tips for less calories and fat, to physicians who request it by a letter to: Mazola Nutrition Health Information Service, Dept. FB-P, Box 307, Coventry, Conn., 06238.

First DDP Newsletter

"Doctors For Disaster Preparedness" (DDP) is a new voluntary organization to promote civil defense plans and equipment especially for the unlikely occurrence of nuclear war or large nuclear disaster. The first DDP Newsletter announces the organization and highlights its officers. It also reports the passage of a pro-civil defense resolution by the California Medical Association.

Persons with a doctoral degree, M.D. or otherwise, may join. Yearly dues are $35. Persons without doctoral distinction may join as associate members with dues of $25. The address is P.O. Box 3482, Fairfax, Va., 22038. Phone (703) 352-0444.

16,500 at ACC Session

The Annual Scientific Session of the American College of Cardiology, which met in New Orleans in March, was favored by a record attendance of more than 16,500. A full program of scientific lectures and educational seminars, together with an extensive exhibit program, occupied and educated more than 8,000 physicians and scientists.

Dr. Steven Beering, former dean of the Indiana University School of Medicine, presented the Annual Convocation Lecture. His address was titled "The QRS Complex Revisited." Dr. Suzanne B. Knoebel, Indianapolis, was president of the ACC for the year which ended with the session.

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Cancer 'Q and A' Booklets

Educational materials for patients on the subject of colorectal cancer are provided by SmithKline Diagnostics in the form of a table-top display and a "Questions and Answers" booklet. The poster announces SKD's Hemoccult® test and the booklet discusses, in layman's terms, colorectal cancer incidence, risk factors, and the value of the Hemoccult test for fecal blood as a screening test. The poster and an initial supply of 100 booklets may be ordered by mail from SmithKline Diagnostics, P.O. Box 61947, Sunnyvale, Calif. 94086, or by toll-free phone (800) 538-1581.

Policy on Routine X-Rays

Routine preoperative chest x-rays for children should not be required. The Committee on Hospital Care of the American Academy of Pediatrics advises that such x-rays should be done only at the discretion of the attending physician, and should never be an admission routine. The committee recommends a good history and physical examination as the best basis for determining suitability for surgical operations.

'Lifeline' Returns to TV

Baxter Travenol Laboratories will return the Emmy award-winning true life medical series, *Lifeline*, to stations of the Public Broadcasting Service this summer. WTTW/Chicago, Ch. 11, will air the first segment Tuesday, July 12, at 8 p.m. CDT. Check listings for other stations.

Film on Workers Comp

The importance of the physician is emphasized in a new film on workers compensation insurance, the third in a series of such films issued by Wausau Insurance Companies.

"The Workers Comp Connection," a 30-minute color film, was produced in cooperation with the AMA. It uses dramatizations to present several situations involving physicians. It also includes footage taken at a meeting of a business-medical health care coalition in Columbus, Ind.

Prints of the film are available on free loan from Wausau Insurance Companies, Communications Services, 2000 Westwood Drive, Wausau, Wisc. 54401—(715)842-6115.

'We Care' Program

The Wells County program for medical care of the unemployed, as exemplified by Caylor-Nickel Medical Center and the "We Care Community Task Force," has been extended by three months and has been expanded by including families with partial employment income.

The two clinics (Bluffton and Ossian) have cared for many unemployed citizens, a service which has attracted donations in excess of $4,000 from community groups, industries and individuals. Those patients who were able paid $5 for each visit but those who could pay nothing were not turned away. A large majority of the patients seen have been children.

Leukemia Research Grants

The Leukemia Society of America is receiving applications for 1984 grants to support research in the fields of leukemia and related disorders. Write to Research Grant Program in care of the Society at 800 Second Ave., New York, N.Y. 10017.

Aspirin Pamphlet

Public Affairs Pamphlet No. 614, "Aspirin: Current Knowledge About an Old Medication," has just been released. It is written by Michael H. K. Irwin, M.D., M.P.H., a frequent writer on health affairs. The 24-page pamphlet covers the history, pharmacology, benefits and dangers of aspirin. The pamphlet costs 50 cents, with rates for quantities. Write Public Affairs Committee, 381 Park Avenue South, New York, N.Y. 10016.

AMA-ERF Grant Received

Indiana University School of Medicine has received the annual grant, which this year amounts to $66,489.88, from the American Medical Association Education and Research Foundation. The AMA total for all U.S. medical schools this year came to $1.5 million. The all-time total exceeds $37 million.

The I.U. grant was the largest in the country. Such funds are unrestricted, an especially helpful distinction since almost all other medical school financial receipts are specified for definite purposes.



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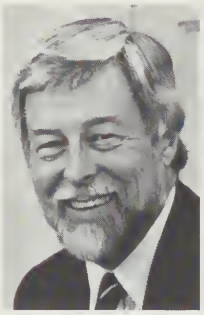
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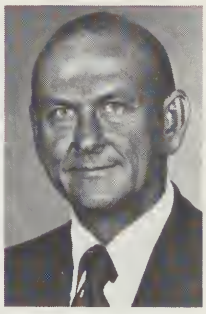
NEWS NOTES

Earlham's New President

DeWitt (Bud) C. Baldwin Jr., M.D., recently professor and assistant dean at the School of Medical Sciences, University of Nevada, has been named president of Earlham College, Richmond, Ind. He has previously held positions at the University of Washington, Boston University, Yale University, Harvard University and the University of Connecticut.



Baldwin



Bennett

Here and There. . .

. . . **Dr. Martin J. O'Neill** of Valparaiso, ISMA's immediate past president, and **Dr. John D. Miller** of Bluffton have been appointed by Gov. Orr to four-year terms on the State Medical Licensing Board.

. . . **Dr. Steven C. Beering,** who assumed the presidency of Purdue University July 1, has been elected to the Board of Directors of Eli Lilly and Company. Meanwhile, in Pittsburgh, he received the Philip Hench distinguished alumnus award from the University of Pittsburgh School of Medicine, of which he is a 1958 graduate.

. . . **Dr. William W. Drummy** of Terre Haute has been appointed Vigo County health officer.

. . . **Dr. Paul T. Maier** and **Dr. Gerald R. Bougher** of Lafayette addressed an April meeting at Lafayette Home Hospital for pacemaker wearers and their families.

. . . **Dr. James M. Fink** of South Bend discussed heart disease during an April nutrition seminar at St. Joseph's Medical Center.

. . . **Dr. Bienvenido V. Ticsay** of Michigan City has been named president-elect of the Philippine-American Urology Society.

. . . **Dr. Irvin L. Heimburger** of Evansville is the new president of the Deaconess Hospital medical staff; **Dr. Stewart P. Smith** is president-elect, and **Dr. Merral B. Lewis** is secretary-treasurer.

. . . **Dr. Robert N. Reilly** of Muncie discussed Alzheimer's Disease during a May meeting of the Alzheimer's Disease and Related Disorders Family Awareness Group of East Central Indiana.

. . . **Dr. Annesley Abey** of Portage discussed Alzheimer's Disease at an April meeting of the Alzheimer's Disease Support Group in Valparaiso; the group is sponsored by the Porter County Council on Aging.

. . . **Dr. David M. Hadley** of Plainfield was a guest speaker at the May meeting in Brownsburg of the Hendricks County Council on Aging.

. . . **Dr. Donald A. Dian** of Bluffton discussed Tourette syndrome at a meeting in May of the South Bend Tourette Syndrome Support Group.



"YOU DON'T NEED TO WORRY 'BOUT DADDY AND ME... WE'RE LIVING IN A HOTEL NOW THAT THE HEALTH INSPECTOR CAME AND PADLOCKED THE HOUSE."

Dr. Bennett Honored

Dr. James E. Bennett, director of Plastic Surgery at Indiana University School of Medicine, has been elected chairman of the American Board of Plastic Surgery. During the same month, he assumed the presidency of the American Association of Plastic Surgeons.

. . . **Dr. Steven C. Meyer** of Fort Wayne discussed "Current Concepts of Cancer" in April as part of a community education series in Kendallville.

. . . **Dr. Donald L. McKinney** of Otterbein discussed stress during an April workshop sponsored by Lafayette Home Hospital.

. . . **Dr. Hill Hastings II, William B. Kleinman, James B. Steichen** and **James W. Strickland** of Indianapolis made presentations and engaged in panel discussions this spring during annual meetings of the American Society for Surgery of the Hand and the American Academy of Orthopaedic Surgeons.

. . . **Dr. Clarence E. Ehrlich** of Indianapolis was a visiting professor at a recent meeting of the Phoenix (Ariz.) Oncology Society; he discussed "Hormonal Receptors in Endometrial, Ovarian and Sarcomal Tumors."

. . . **Dr. Thomas A. Jean** of Morristown has been named "Citizen of the Year" by the Morristown Chamber of Commerce.

. . . **Dr. Richard A. Murrell** of Muncie discussed heart surgery at the April meeting of the Renewed Hearts Club, Muncie.

. . . **Dr. Sheldon J. Friedman** of Noblesville discussed heart disease in April as part of the Riverview Hospital Discussion Series.

. . . **Dr. R. Joe Noble** of Indianapolis has been appointed governor of the American College of Cardiology in Indiana.

. . . **Dr. Harold D. Caylor,** Caylor-Nickel Medical Center, Bluffton, a former recipient of the Russel V. Lee Award and Lectureship, was recently presented a plaque by the American Group Practice Foundation for his accomplishments and contributions in the field of group practice.

Here and There . . .

. . . **Dr. Victor H. Muller** of Indianapolis is on a six-member panel created by the American Blood Commission as a "Forecast Roundtable" to discuss possible changes and developments in blood service delivery in the year 2025.

. . . **Dr. Henry C. Bock,** medical director of the Indianapolis Motor Speedway, addressed the May meeting of the Indianapolis Rotary Club.

. . . **Drs. Thomas J. Cittadine, Daniel W. Dro** and **Mark R. Stevens,** Indianapolis, have been named fellows of the American Academy of Orthopaedic Surgeons.

. . . **Dr. James P. Elkins** of Indianapolis has been made a lifetime member of the Indianapolis Press Club.

. . . **Dr. Harold G. Halbrook** of Indianapolis, the surgeon who performed Indiana's first heart transplant, has received the Alumni Special Award from the University of Evansville, of which he is a 1960 graduate.

. . . **Dr. Gene E. Ress** of Tell City has been presented a plaque in recognition of 15 years service as the city schools' sports team physician.

. . . **Dr. Walter F. Florczak** of Hammond discussed "Stroke Prevention: The Surgeon's Viewpoint" during a May meeting of the Michigan City Mended Hearts Club.

. . . **Dr. Gwendolyn Heaton,** daughter of Dr. and Mrs. Elton Heaton of Madison, received the M.D. degree at the Univeristy of Louisville in May; she will continue her studies in internal medicine at St. Joseph's Hospital, Phoenix, Ariz.

. . . **Dr. Sofia Valenzuela** of Merrillville discussed "Should I Call the Doctor?" during a May meeting of parents who have high-risk infants.

. . . **Dr. Marvin E. Mishkin** of Elkhart has been named a fellow of the American College of Gastroenterology.

. . . **Dr. Robert J. Steele,** an Indianapolis oncologist, has been named a fellow of the American College of Physicians.

More Free Medical Care

Free care and reduced fees for the unemployed is becoming the rule for a large proportion of U.S. physicians. An AMA survey shows that 71% of the doctors surveyed had adopted compassionate terms for those whose employment-connected insurance coverage had been terminated due to loss of employment.

There also have been a large number of communities that have developed support programs for medical services in such circumstances.

. . . **Dr. Stanley G. Reedy,** Elkhart County public health officer, has been elected president of the Indiana Public Health Association.

. . . **Dr. Jan R. Reineke** of South Bend discussed infertility and artificial insemination during a May meeting of South Bend Area Resolve.

. . . **Dr. Thomas A. Mabel** of Noblesville discussed "Sex Education: Communicating with Your Child" during a May meeting for parents at Riverview Hospital, Noblesville.

Patent Act Introduced

The Patent Term Restoration Act of 1983 (S1306) has been introduced by Sen. Charles Mathias and is co-sponsored by 12 other senators. This is the bill designed to extend the life of a patent of any product, including drugs, the marketing of which is delayed by testing for safety and effectiveness.

The extended testing period for modern drugs requires more and more time and may involve many years of the patent protection. This delay reduces the monopoly period during which the manufacturer must recover research and development expenditures in order to create the finances necessary for research and discovery of other new pharmaceutical products.

Physician Recognition Awards



The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.



Angel, Virgil E., Highland
Babu, Sajja L.P., LaPorte
Banguis, Eliseo T., Shelbyville
Beeson, Wilbur P., Greenfield
Bennett, Thomas W., Fort Wayne
Bloss, Bryant A., Evansville
Bretz, Robert D., Huntingburg
De La Cotera, Frederick G., Munster
Eble, John N., Indianapolis
Elleman, John H., Kokomo
Fischer, Charles K., Evansville
Green, Robert F., Fort Wayne
Haggerty, Fred E., Greencastle
Hastings, Richard A., Elkhart
Heritier, Claude J., Columbia City
Leser, Ralph U., Indianapolis
Malak, Thaddeus J., Valparaiso
McCormick, Charles O., Franklin
Nakamura, Takamitsu, Munster
Ochsner, Edward C., Danville
Pangan, Jesus F., Terre Haute
Panszi, Jose G., Muncie
Philbrook, Seth S., LaPorte
Rader, Nicholas R., Franklin
Saddawi, N. David, South Bend
Santos, Napoleon L., Munster
Schuster, Dwight W., Indianapolis
Senasu, Sunchai, Valparaiso
Sirlin, Edward M., Fort Wayne
Smith, Robert D., Lafayette
Thurston, John B., Indianapolis
Trammell, Terry R., Indianapolis
Trusler, Harold M., Indianapolis
Villarin, Adrian, Richmond
Watkins, Larry E., Angola
Yuhn, Robert B., Elkhart



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A foundation for charitable, educational, and scientific purposes, organized by the ISMA as an endowment fund to support the educational mission of the Association and THE JOURNAL.

Bequests, legacies, devises, transfers or gifts to the Foundation or for its use are deductible for federal estate and gift tax purposes, in accordance with the Internal Revenue Code.

The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

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OBITUARIES

John F. Dillon, M.D.

Dr. Dillon, 61, an Indianapolis radiologist, died April 27 at his home.

He was a 1947 graduate of George Washington University School of Medicine and was a veteran of World War II and the Korean War.

Dr. Dillon was a radiation therapist 20 years at Methodist Hospital, Indianapolis. He was certified by the American Board of Radiology and was a member of the American College of Radiology and the American Society of Therapeutic Radiology.

James V. Richart, M.D.

Dr. Richart, 82, a retired Terre Haute physician, died May 21 at his home.

He was a 1926 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Richart, who retired in 1981, was a member of the ISMA Fifty Year Club.

James D. Peirce, M.D.

Dr. Peirce, 70, retired director of industrial medicine for Eli Lilly and Co., died April 26 in an Indianapolis nursing home.

He was a 1940 graduate of Indiana University School of Medicine.

Dr. Peirce had been an assistant professor at the I.U. School of Medicine and was a former medical director of Wishard Memorial Hospital. He was a member of the Industrial Medical Association, the American Federation for Clinical Research, and the Marion County Heart Association.

Robert W. Greene, M.D.

Dr. Greene, 60, a Rensselaer physician serving as president of the Jasper County Medical Society, died April 25 at Jasper County Hospital.

He was a 1956 graduate of the Ohio State University College of Medicine, Columbus, and was an Army veteran of World War II.

Dr. Greene, a former chief of staff of Jasper County Hospital, was a member of the American Academy of Family Physicians.

Philip J. Rosenbloom, M.D.

Dr. Rosenbloom, 83, a retired Gary physician, died May 1 in St. Paul, Minn.

He was a 1924 graduate of Rush Medical College, Chicago, and was an Army veteran of World Wars I and II.

Dr. Rosenbloom, a former Gary health commissioner, was a member of the American Academy of Family Physicians and the ISMA Fifty Year Club. He also was a former ISMA delegate representing the Lake County Medical Society.

Guy A. Owsley, M.D.

Dr. Owsley, 79, a retired Hartford City otolaryngologist and a former ISMA president (1960-61), died June 5 in Rochester, Minn.

He was a 1928 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Owsley had been active in both ISMA and AMA activities, having served as an AMA delegate and as an ISMA trustee. He was a past president of the Indiana Academy of Ophthalmology, the Indiana Academy of Otohinolaryngology, and the Delaware-Blackford County Medical Society. He was a member of the ISMA Fifty Year Club.

Philip L. Ensey, M.D.

Dr. Ensey, 58, physician at the Lewisburg (Pa.) Federal Penitentiary, died May 11 at Geisinger Medical Center in Danville.

He was a 1953 graduate of Indiana University School of Medicine and was a veteran of World War II. Before moving to Lewisburg in 1981, he practiced in Terre Haute and was a director of Student Health Services at Indiana State University for 10 years.

Dr. Ensey, formerly an E.R. physician at Union Hospital, Terre Haute, was a fellow of the American College of Emergency Physicians.

Charles L. Wise, M.D.

Dr. Wise, 79, a Camden physician since 1934, died June 9 at the I.U. Medical Center, Indianapolis.

He was a 1933 graduate of Indiana University School of Medicine.

Dr. Wise was a staff member at Memorial Hospital in Logansport for 50 years; he was one of the founders of the cardiovascular care unit there. He was a past president of the Carroll County Medical Society. His memberships included the American Academy of Family Physicians, American Society of Clinical Hypnosis and American Society of Clinical Pathologists.

Memorials: Indiana Medical Foundation

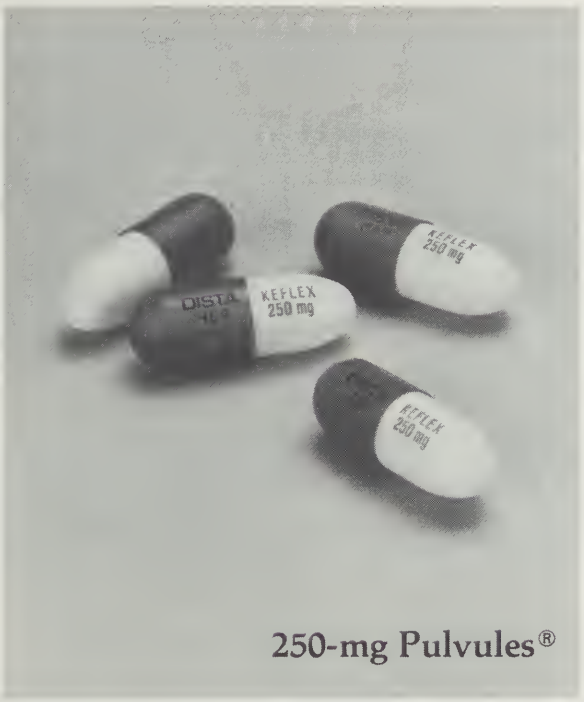
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The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

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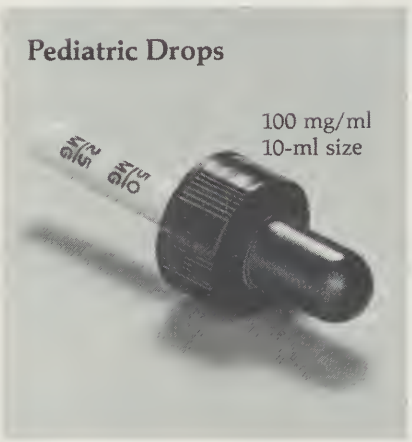
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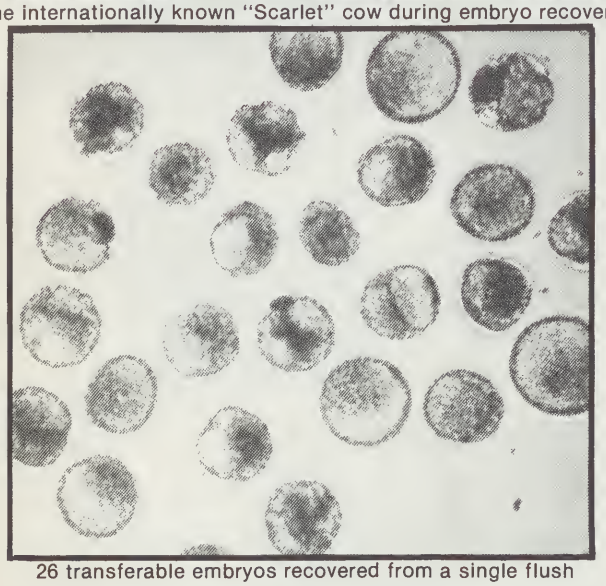
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CME QUIZ
Hypertension . . .

CONTINUED FROM PAGES 449-452

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Div. of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Of the following, the most common secondary form of hypertension is:
   a. Renal vascular hypertension
   b. Primary aldosteronism
   c. Pheochromocytoma
   d. Cushing's syndrome

2. Which of the following is *not* an indication for working a hypertensive patient up for a secondary form?
   a. Sudden onset of hypertension
   b. Severe hypertension
   c. Estrogen ingestion
   d. Hypokalemia

3. A valuable clue that the patient may have renal vascular hypertension is:
   a. Neurofibromata
   b. Systolic-diastolic abdominal bruit
   c. Proptosis
   d. Buffalo hump

4. Of the following, the best screening test for renal vascular hypertension is:
   a. Urinary 17-hydroxycorticosteroids
   b. Intravenous pyelography
   c. Urinary catecholamines
   d. C-T scan of the abdomen

5. Primary aldosteronism may be suspected in a patient having any of the following *except*:
   a. Hypokalemia
   b. Severe hypertension
   c. Low renin levels
   d. High renin levels

6. Which of the following does not suggest a pheochromocytoma?
   a. Paroxysmal episodes of tachycardia
   b. Excessive sweating
   c. Diabetes mellitus
   d. Increased serum amylase

7. The diagnosis of pheochromocytoma can be confirmed by elevation of:
   a. Urinary free cortisol
   b. Urinary catecholamines
   c. Urinary aldosterone
   d. Urinary creatinine

8. The safest way to localize the tumor in patients with pheochromocytoma is:
   a. C-T scan of the abdomen
   b. Radioactive iodine
   c. Abdominal arteriogram
   d. Intravenous pyelogram

9. Hyperthyroidism may be suggested by the presence of:
   a. Atrial fibrillation
   b. Cafe-au-lait spots
   c. Buffalo hump
   d. Purple abdominal striae

10. Which of the following is *not* recommended as part of the routine evaluation for *essential* hypertension?
    a. Blood glucose
    b. Blood urea nitrogen
    c. Urine analysis
    d. Plasma cortisol

JUNE CME QUIZ Answers

Following are the answers to the CME quiz that appeared in the June 1983 issue of THEJOURNAL: "Popliteal Cysts and Calf Swelling: A Diagnostic Dilemma," by Steven Eyanson, M.D.

1. d	6. a
2. d	7. c
3. c	8. d
4. a	9. c
5. b	10. d

Answer sheet for Quiz: (Hypertension . . .)

1. a b c d	**6. a b c d**
2. a b c d	**7. a b c d**
3. a b c d	**8. a b c d**
4. a b c d	**9. a b c d**
5. a b c d	**10. a b c d**

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for this month's quiz, send your completed, signed application before Aug. 10, 1983 to the address appearing at the top of this page.

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12—Michael O. Mellinger, LaGrange (1985)
13—Donald S. Chamberlain, South Bend (1983)
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4—William E. Cooper, Columbus (1985)
5—Benny Ko, Terre Haute (1985)
6—Clarence G. Clarkson, Richmond (1983)
7—John D. MacDougall, Beech Grove (1985)
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8—William C. VanNess II, Alexandria (1985)
9—R. Adrian Lanning, Noblesville (1983)
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12—Thomas A. Felger, Fort Wayne (1983)
13—John W. Luce, Michigan City (1985)

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Malcolm O. Scamahorn, Pittsboro (1984)
Everett E. Bickers, Floyds Knobs (1984)
Marvin E. Priddy, Fort Wayne (1983)
Peter R. Petrich, Attica (1983)
Thomas C. Tyrrell, Hammond (1983)

AMA ALTERNATE DELEGATES (Terms end Dec. 31)
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Arvine G. Popplewell, Indianapolis (1983)
G. Beach Gattman, Elkhart (1983)
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Annual Meeting: June 29, 1983, Vincennes
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Annual Meeting:
4—Pres: Howard Jackson, Madison
Secy: George L. Alcorn, Madison
Annual Meeting: May 1984, Madison
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Annual Meeting: Aug. 24, 1983, Terre Haute
6—Pres: Wylie G. McGlothlin, New Castle
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Annual Meeting: May 2, 1984, Shelbyville
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Annual Meeting: Aug. 17, 1983, Indianapolis
8—Pres: Alfonso E. Lopez, Portland
Secy: Frank H. Bonser, Dunkirk
Annual Meeting: June 15, 1983, Portland
9—Pres: Harry T. Stout III, Frankfort
Secy: Stephen D. Tharp, Frankfort
Annual Meeting: June 8, 1983, Frankfort
10—Pres: Vincent J. Santare, Munster
Secy: Barron M. F. Palmer, Hammond
Annual Meeting: Sept. 22, 1983, Hammond
11—Pres: Rex A. Wieland, N. Manchester
Secy: Frederick C. Poehler, Wabash
Annual Meeting: Sept. 21, 1983, Wabash
12—Pres: Robert H. Musselman, Fort Wayne
Secy: Thomas D. Smith, New Haven
Annual Meeting: Sept. 15, 1983, Fort Wayne
13—Pres: Donald L. Minter, Goshen
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Annual Meeting: Sept. 14, 1983, Elkhart

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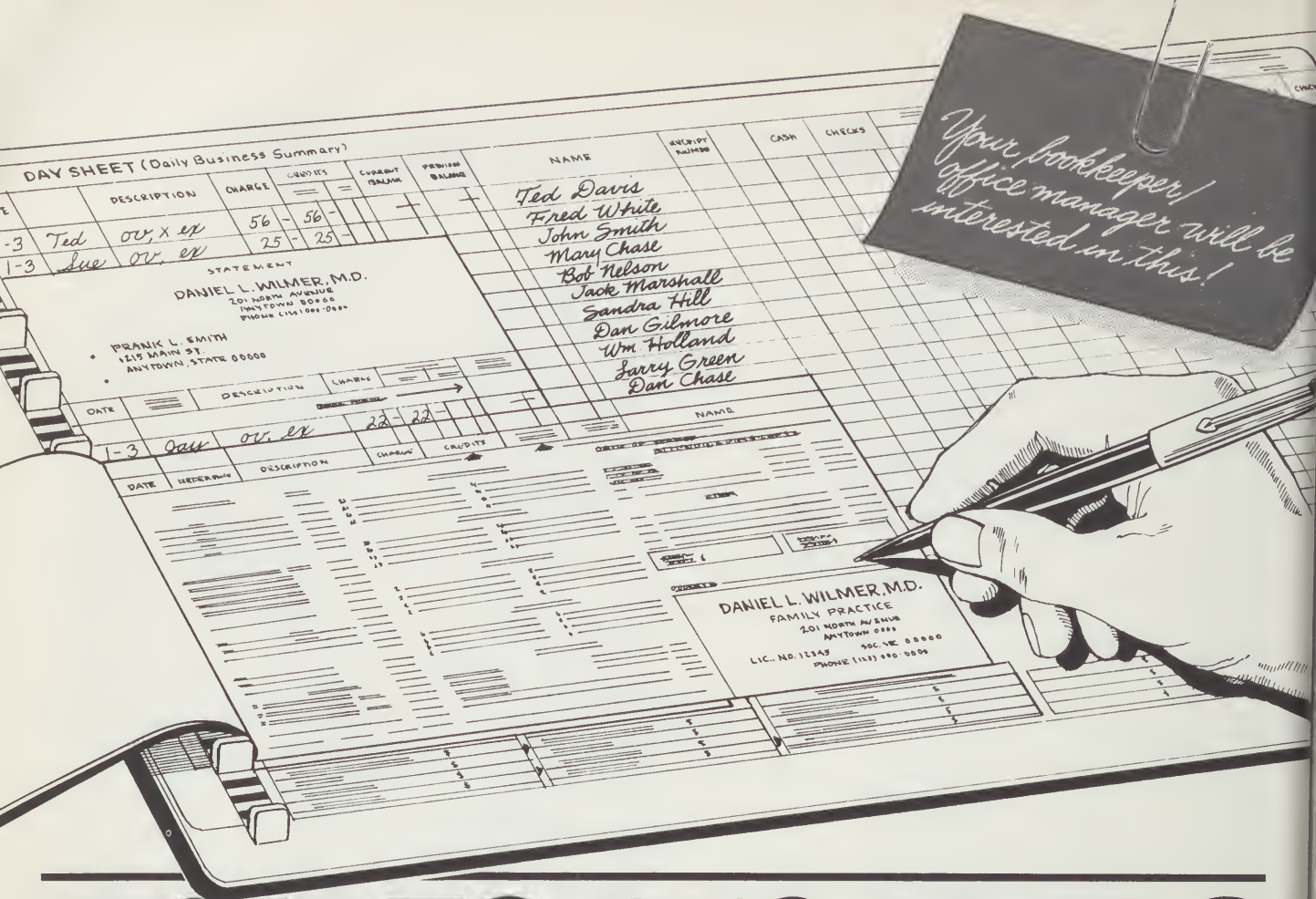
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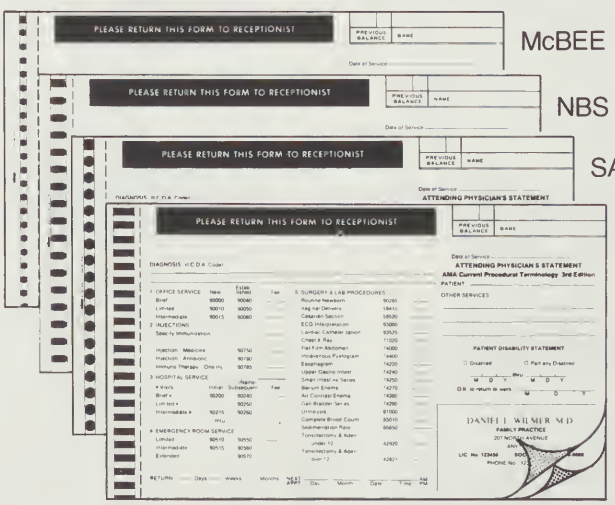
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GOVERNMENT GUIDELINES
FOR PROSPECTIVE PAYMENT OF HEALTH CARE COST--
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The Tax Equity and Fiscal Responsbility Act (TEFRA) of 1982 (PL97-248) called upon the Secretary of Health and Human Services to develop "proposals for legislation" which would provide hospitals, skilled nursing facilities, and to the extent feasible, other providers, with a method for reimbursement under Title XVIII of this Act on a prospective basis. This was to have been done in consultation with the Senate Finance Committee and the House Committee on Ways and Means, by December 31, 1982. In response to this mandate, the Secretary of HHS released the report to Congress on prospective payment in late December, 1982. This report presented to Congress a single recommendation for a Medicare prospective payment system for hospitals. The Congressional action on this report was the Social Security Amendment of 1983 (HR 1900) which will establish a new system of reimbursements to hospitals for Medicare-covered inpatient care.

Under this system, prospective reimbursement rates for hospital services to Medicare beneficiaries will be set in advance and fixed for all inpatient services on an annual basis. These rates will serve as payment in full for hospital services, with beneficiaries being responsible for only statutory set deductible and co-insurance amounts. Where hospitals receive a payment that is greater than the cost of treating Medicare beneficiaries, they will keep that "bonus," and they will not be allowed to pass excess costs onto the patient. This will, in effect, introduce into the system an incentive factor for hospitals to contain costs on a per case basis.

Payment to hospitals will be based upon a "per discharge" basis. The initial year payment figure will be determined pursuant to a formula where base year costs are established for all hospitals "on a national representative Medicare cost per discharge." To recognize hospital case mixes, actual payment rates will be determined by adjusting the national rate by a factor assigned to each Diagnostic Related Group (DRG).

The DRG classification system will be the 1981 methodology developed at Yale University. This system groups patients into 467 categories derived from 1.4 million discharge records. Specific adjustments will be allowed to hospitals for local variations and labor-related costs. In addition, capital costs and direct medical education costs will be separately reimbursed on a reasonable cost basis, and outpatient department costs will be calculated separately from the DRG system. Indirect educational expenses (expenses related to additional tests and to the particular types of patients attracted to teaching hospitals)

will be reimbursed to the hospital on a lump-sum basis. Additional payments above the DRG payment will be authorized for extremely long-stay cases based upon "outlier-trim points." These trim points will be determined by a review of patient stay data.

Payment on the basis of prospective rates as established by the Social Security Amendments passed by Congress (HR 1900) on March 24, 1983, will become effective on October 1, 1983, and phased-in over a three-year period. In the fiscal year beginning October 1, 1983, the hospital will have its payment set equal to 75% of the hospital's target amount (as determined under existing law), plus 25% of the regionally adjusted DRG Prospective Payment Rate. In the fiscal year beginning October 1, 1984, the payment will be based on 50% of the target amount, plus 50% of the "applicable combined DRG Prospective Payment Rate" (25% of a national adjusted DRG Propsective Payment Rate; 75% of the adjusted DRG Payment Rate). In the fiscal year beginning October 1, 1985, hospital payment will be 25% of the hospital target amount and 75% of the DRG Prospective Payment Rate (50% of the national adjusted DRG Prospective Payment Rate and 50% of the regional adjusted DRG Propsective Payment Rate). Finally, after October 1, 1986, the amount received will be the national adjusted Prospective Payment Rates (urban and rural).

Supporting this regulatory scheme will be a system of peer review organizations (PRO) assigned to specific service areas. A hospital will be required to contract with the utilization and quality control peer review organization (PRO) serving this area. The PRO will be required to review the validity of diagnostic information provided by the hospital for the purposes of payment; the completeness and adequacy of care; the appropriateness of admissions; and the appropriateness of care provided for outlier cases.

Outlier payments provide for additional payment to hospitals where the length of stay exceeds the mean length of stay for discharges in that DRG by a fixed number of days, or exceeds the mean length of stay by some fixed number of standard deviations, whichever is fewer in number of days. In no case can total payments for outlier cases in a fiscal year exceed 6%, or be less than 5%, of the total payments to be paid to a hospital based on DRG for discharges in that year.

For areas where there are PRO's hospitals must be under contract review by October 1, 1983. The deadline for establishing a PRO within a hospital serving area is October 1, 1984. If there is failure for a PRO to be established for a hospital area by this date, or failure of the hospital to establish a contract for review with the PRO, it will result in the hospital receiving no reimbursement under Medicare after October 1, 1984.

The DRG Program represents an innovative methodology which would, according to its sponsors, facilitate the rate setting process, accomplish cost control, improve quality of care, and upgrade physician performance, demonstrate the value

and validity of prospective payment and correct the pre-existing (cost shift) inequities. The program was introduced as a voluntary, limited "experiment" in the state of New Jersey, and now is being projected as a successful model for other states to follow. This "experiment", however, defies all criteria for experimentation, and its claims for success are at the best deceitfully premature.

The program will, in effect, have a negative impact upon many hospitals as illustrated by a case in point in the New Jersey experience:[1]

> Jersey City Medical Center, an institution that was projected to benefit most from DRG's has declared bankruptcy and will undoubtedly turn to some form of state or local bail out.

The press and media have highlighted a credibility of unilateral projections predicting the eventual success of the DRG Program; but have not as yet made public the actual experience and fiscal figures of such hospitals as Jersey City Medical Center.

Another example that clearly illustrates a fallacy of "Prospective Payment" is the experience of Middlesex County Hospital in New Jersey, which entered the DRG Program in January of 1982. They received their proposed rates for 1982 on June 1, 1982, and were dismayed by the reimbursement figures involving some $9 million worth of items. They registered an appeal. So far, regulators have seen fit to approve $7 million of the appeal, reject $500 thousand,[2] and continue the consideration of the remaining $1.5 million.

In a recent visitation of the Executive Committee for the Indiana State Medical Association, with Carolyn Davis, Chief of the Health Care Financing Administration, it was understood from the remarks of the HCFA Chief, that the Administration felt compelled to do something of an urgent and monumental nature to deal with rising health care costs and felt that the DRG program represented a viable approach and it was adopted with the full support of the Health Care Financing Administration, regardless of the projected impact upon the health care delivery system. In other words, they felt compelled to do something and this was their choice of methodology. She also predicted that a similar methodology will be applied to determining reimbursements for physicians as a logical extension of the program.

It is the attitude of this author that even if Medicare costs would be lowered, the gain would be miniscule compared to the increased cost of regulation, conversion and compliance, as well as the cost shifts of a new and more ominous nature. Any effective achievement of the stated goals of DRG's can only occur at the greater cost of defacto rationing.

Most hospitals have foreseen short term benefits and have permitted, or summarily supported the DRG Program; however, it is anticipated by this author that following the curtailment of initial liberal allowances to hospitals, subsequent unrealistic restrictions will occur in hospital reimbursements. Consequently, once there is a pruning out of what could be justifiably classified as waste in order to maximize returns in the early going, most hospitals will be left with no other means of cutting costs than to down grade services or deny admission of those cases which are likely to incur cost over runs.

We expect hospitals will pull back from offering many tests and procedures that have, until now, been profitable to them. It is also expected that hospitals will be less willing to purchase updated equipment than in the past. A corresponding shift in the emphasis on outpatient care will mean that many procedures primarily performed in the hospital will now be performed on an outpatient basis with the doctor's office becoming one logical choice. Physicians and medical groups should therefore think seriously about expanding their office equipment and procedures to include these services.

It is the real concern of all physicians that the likely failure of these prospective payment programs will have their most profound effect on the unsuspecting patient, as he or she attempts to adjust to a health care delivery system predicated on rationing of care.

[1] Primich, Frank J., "Danger of Regulation by Government," Private Practice, April, 1983.

[2] Ibid

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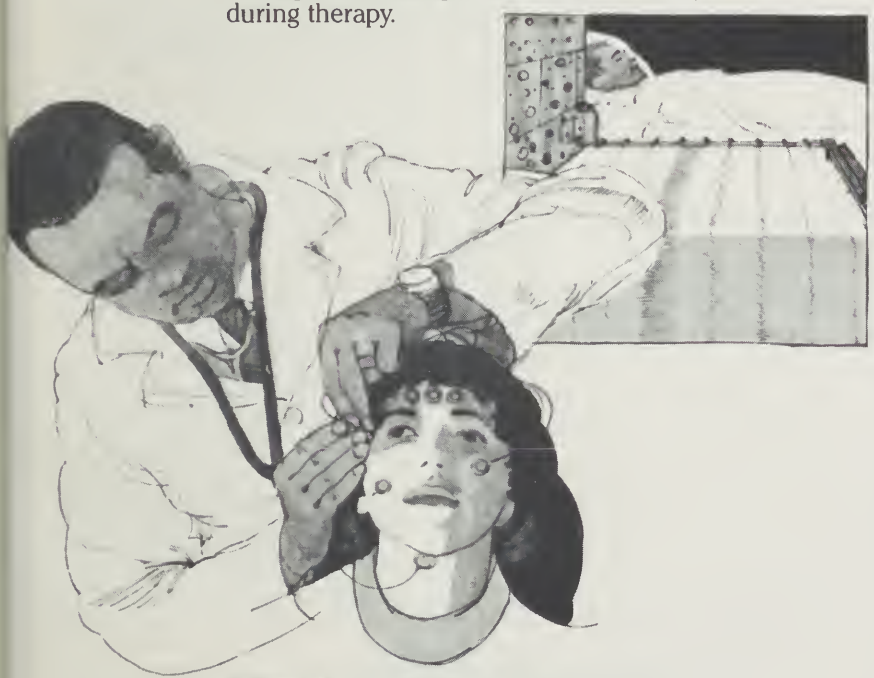
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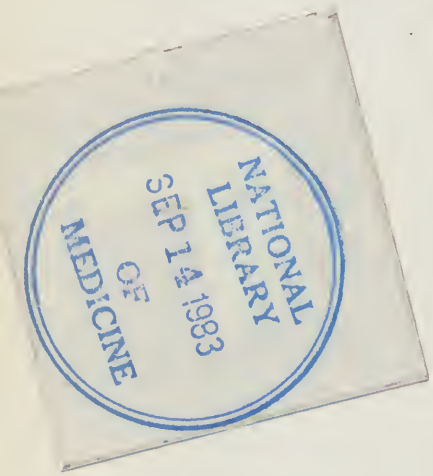
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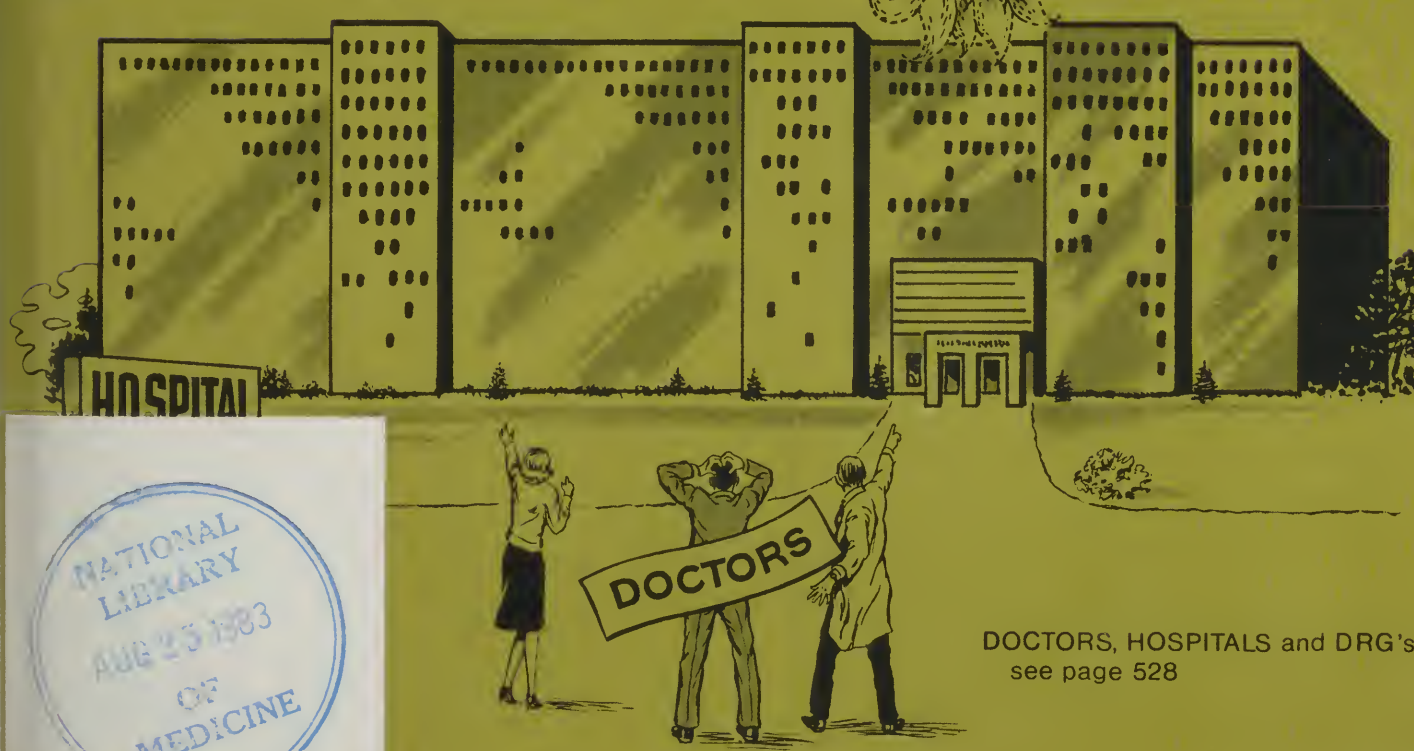
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The JOURNAL of the INDIANA STATE MEDICAL ASSOCIATION





DOCTORS, HOSPITALS and DRG's
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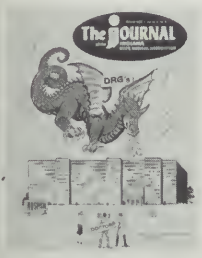
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ABOUT THE COVER

Beginning Oct. 1, the vigilant eye of the federal government will be trained upon a new system to determine the amount of hospital reimbursement for the treatment of Medicare inpatients—Diagnostic Related Groups, or DRGs. A concise explanation of and commentary on the DRG method of payment begins on page 528.

—COVER BY FRED KINGHORN

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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

THE HIGH COST of natural gas is of current concern throughout the state and nation. It is interesting to recall that less than 100 years ago natural gas was so abundant in Indiana that the fuel was offered free to induce the development of industry in a number of Indiana cities. By 1895 Indiana had 395 incorporated natural gas companies, and by that time more than $300 million had been invested in Indiana factories.*

Natural gas was so plentiful that the supply appeared endless, this being conducive to an attitude of waste. "In small towns the streets were illuminated, torch-like, by the lighted gas flowing without check from the mouths of two-inch pipes, and it was no rare spectacle to see the flow from gas wells burning an immense flame day and night."* This flow peaked in 1900.

The principal gas field extended northeastward from Decatur County to Randolph and Jay Counties, north to the Wabash River and west to Clinton County. Another large field, located in the southwestern part of the state, extended from Vigo south to Greene and Pike Counties. In all, 26 counties were involved in gas production.

Dr. Arthur J. Phinney, an Indiana physician, played an important role in this development. On the basis of core samples and other studies, he mapped the major gas field of Indiana, and predicted the limits of its fruitful drilling sites. He was a pioneer in this area of geology.

Born in Ohio in 1850, educated at Oberlin College, Alleghany College, and Wooster College, he obtained the M.D. degree from Pulte Medical School at Cincinnati in 1877. He settled in Muncie in 1878, where he had a long career in the practice of medicine. He had passed his 90th birthday when he died on May 26, 1942.

Gas was discovered in Pulaski County as early as 1865, but the year 1886 marks the beginning of Indiana's gas boom. This began at Eaton, north of Muncie in



Arthur J. Phinney, M.D.—Indiana's Pioneer in Subsurface Geology

Delaware County. A shaft had been sunk in a futile attempt to find oil. This was then extended, and in September of that year, gas was struck. Arthur Phinney was present on the scene. He not only studied the borings, the terrain, and the elevation at this site, he repeated his studies at the subsequent successful drilling sites; and in 1882 he published his data about the Indiana Gas Field.

Professional geological writing was not new for Phinney, because he had made frequent contributions in the Annual Reports of Indiana Department of Geology and Natural History (e.g., The Geology of Delaware County in 1881, the Geology of Randolph County in 1882, and the Geology of Grant County in 1883). Phinney was also a competent botanist, providing a catalogue of the flora of Central Eastern Indiana, also in 1883.

Although regarded as an amateur geologist, in the sense that he never earned his livelihood from this source, he was every bit an advanced professional in terms of his knowledge and ability.

Phinney's various articles regarding natural gas in Indiana led to his appointment as United States Geological Surveyor for the Indiana Gas Field. His work here required three years for completion, and was published in 1891 (11th Annual Report of the United States Geological Survey).

It isn't too unusual perhaps for an intelligent Muncie resident with a scientific bent to have become involved with such activities, and perhaps it is not too unusual that he came to be regarded as the foremost authority on the geology of Indiana gas. What does seem remarkably unusual is how he found the time to make these substantial contributions, and how it was that he could excel with what had, at best, to be a part-time activity, pursued over a very limited period of time.

Dr. Phinney was a charter member of the Indiana Academy of Science. His principal activity, however, was the practice of medicine, but here the record is scant. He is not to be found in the obituary file at the I.U. School of Medicine Library; nor is he mentioned in Kemper or Stone. His medical activity was not characterized by writing. In addition to medicine and geology, he was interested in music, in the origin of religious beliefs, the origin of the American Indian, and in irrigation problems in the deserts of the West.

The principal source for the above information is *Arthur J. Phinney, M.D., Indiana's First Subsurface Geologist* (Proceedings of the Indiana Academy of Science for 1980, pp. 335-339) by Walter H. Pierce, Department of Geography/Geology, Ball State University. Pierce notes in his article that Dr. Phinney's total geological work was limited to 15 years. "One can only imagine what contribution Dr. Phinney might have made to geology, had he devoted a larger part of his life to this science."

Dr. Phinney left no descendents.

*Centennial History and Handbook of Indiana, Indinapolis, Max Hyman Pub. 1915.

WHAT'S NEW?

Carl Zeiss, Inc. offers a limited-edition, working replica of a famous Zeiss microscope, the Stativ VII, for museums and private collectors. It is handcrafted as an exact replica of the original instrument manufactured in the 1880s. The Stativ VII was the model that enabled the discovery of the tubercle bacillus by Robert Koch in 1882.

General Electric has a new, battery-powered x-ray system designed to serve a full range of routine diagnostic radiographic procedures. The Technamatic ™ system delivers up to 1,000 radiographs on a single battery charge. The system consists of a generator, battery pack, x-ray tube and stand, and patient cart. It is for use in third-world countries and is not for sale in the U.S.

Du Pont has introduced a benchtop, modular-engineered discrete clinical analyzer system that automates 48 tests and may be expanded for more. The 'aca' IV, is the smallest and lowest priced of the whole family of Du Pont analyzers. It is suitable for hospitals, including the small ones, for clinics and group practices, in the main lab, STAT lab, ER, ICU or CCU.

NSG Precision Cells announces the Model DHB-3 meter, which provides a fast and accurate method of measuring hemoglobin concentration. It includes a checking circuit with a standard liquid to assure accurate results. Concentrations can be measured between zero and 25g/100ml.

Philips Medical Systems has the SDD 500 Doppler accessory, which is designed to extend the diagnostic capabilities of the SDR 2000 and SDU 3000 imaging systems. The new system applies ultrasound and the Doppler shift to detect blood flow and direction. Will aid in determining carotid stenosis or occlusion, calcified arteries and the functional significance of lesions and venous disease.

Ciba has received marketing approval from FDA for the first 15 mg transdermal nitroglycerin patch. Transderm® - nitro is available in the 15 mg dosage form. It is already marketed in 10 mg, 5 mg, and 2.5 mg forms. Each form releases its dose of nitroglycerin over a period of 24 hours.

LeaStaff is a new Indianapolis company that offers the advantages of full-time employee leasing. LeaStaff hires the entire staff of any group and leases it back to the employer. This accomplishes an immediate reduction in all the expenses and details involved with payroll, taxes, insurance programs, pension plan payments and other benefit programs. The employees continue working in the same setting and for the same boss and sometimes receive a better total benefit package through the economy of larger scale programs as an employee of LeaStaff. Another division of LeaStaff, Office Aid, will provide temporary placement service for medical and dental professions.

O-Two Systems International has a portable, manually powered resuscitator, available in both adult and child sizes. It is designed to help re-establish and support spontaneous breathing for patients with impaired respiratory function. Accessories such as carrying cases, adaptors for oxygen equipment, etc. are available.

Upjohn has produced a comprehensive patient information brochure for "Motrin Tablets (ibuprofen)—a medication to help relieve your arthritis." It is intended to reinforce information presented by the physician and enhance patient-physician communication. Upjohn sales representatives will supply the brochure to physicians. Additional supplies may be requested.

Stuart Pharmaceuticals has FDA approval to market HIBICLENS® (chlorhexidine gluconate) impregnated sponge-brush for surgical scrubs. Research shows that HIBICLENS is superior to existing povidone-iodine and hexachlorene preparations. It has a persistent antimicrobial effect of up to six hours.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

The 3M Company announces a polymer plaster bandage that is strong, light and water-resistant. It is called 3M Pearlcast™ polymer plaster bandage. The polymer aids in keeping the plaster on the bandage. It molds and laminates easily and has a low exothermic reaction.

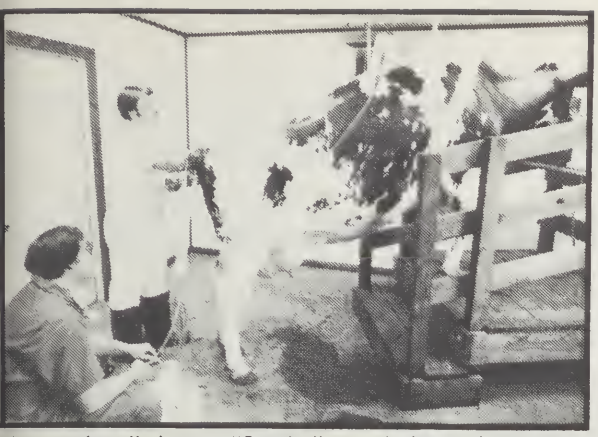
Pyramid Film & Video of Santa Monica has for sale or rent a 30-minute film entitled "Promises: Profile of an Alcoholic." It is acted by a recovered alcoholic and is intended as an aid in counseling alcoholics. Also for families and friends of alcoholics and for employee assistance programs in business and industry. It is in color on 16mm video film, for sale at $450. The rental rate is $65 for three days.

Warner-Lambert announces a new flexible 35 cm Fiber Optic Sigmoidoscope. Its flexibility and small diameter allows its use for routine endoscopy of the rectum and colon. Much more popular with patients than is the rigid instrument.

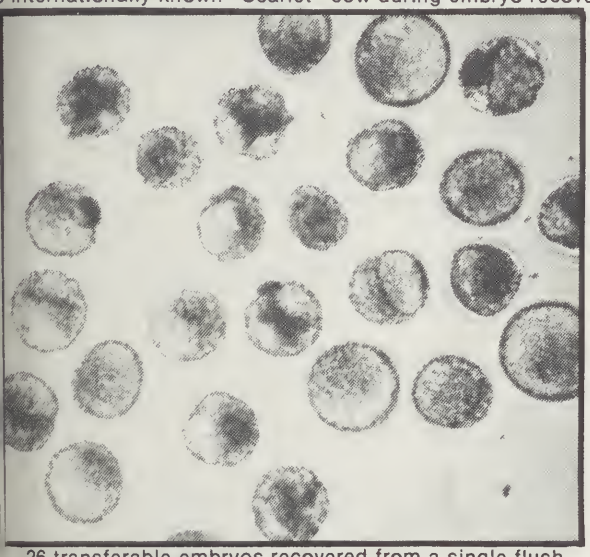
Advance Medical & Research Center of Pontiac, Michigan announces an overnight analysis of the tape recording which results from a 24-hour ECG recording made while the patient is ambulatory and engaged in normal daily duties. Ambulatory monitoring with the Holter system is also useful for following post-operative patients, especially those with newly installed pacemakers.

The ASCP Press, the publishing arm of the American Society of Clinical Pathologists, has collected the series of *JAMA* articles entitled "Toward Optimal Laboratory Use," edited by Dr. George D. Lundberg, *JAMA* editor. The book is entitled *Using the Clinical Laboratory in Medical Decision-Making* and sells for $30. ASCP members get a discount. Chapters are written by 61 noted authorities and outline the process of determining the type of tests necessary for diagnosis.

Norwich Eaton Pharmaceutical's Audio-Visual Library has a new teaching film, a 27-minute 8mm or 16mm production on the subject of "Paget's Disease of Bone." Sales representatives will aid in obtaining the film.



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For more information contact Holstein Breeding Enterprises, Inc. for detailed information about Holstein cow ownership.



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FUTURE FILE

Adolescent Health

"The Adolescent Athlete" is the subject of a full-day conference at St. Elizabeth Hospital Medical Center in Lafayette, Sept. 15. Maturation, nutrition, physical injuries, safe practice conditions, psychological aspects, female athletics and legal liability will be discussed.

Contact Alan A. Alexander, M.D., c/o St. Elizabeth's, P.O. Box 7501, Lafayette 47903.

Conference on CME

Continuing Medical Education will be the main subject of a meeting Oct. 14-15 at the Drake Oakbrook Hotel, Oak Brook, Ill. The agenda will include discussions on the development of appropriate goals, objectives and evaluation techniques, small workshops, and a debate on the future of CME.

The sponsor is the Illinois Council/CME, which may be queried for further information, 55 E. Monroe, Suite 3510, Chicago 60603—(312) 236-6110.

Evansville Seminars

St. Mary's Medical Center in Evansville announces that its fall seminar program will begin Sept. 15 with the annual Joseph E. Coleman Pediatric Seminar, from 1-5 p.m. The theme will be "Pediatric Hematological Problems."

The Endocrine Seminar—Part IV, which will study the "Islets of Langerhans," will be conducted from 1-5 p.m., Oct. 20.

The annual Family Practice Seminar, studying "Rheumatoid, Tumor and Pulmonary Immunology," will be conducted Nov. 3 from 1-5 p.m.

Contact St. Mary's at 2700 Washington Ave., Evansville 47750—(812) 479-4468.

AHA Trustee Conference

The Trustee Conference, to be conducted in Baltimore by the American Hospital Association on Sept. 1 and Oct. 1, is designed for hospital trustees, chief executive officers and physicians responsible for governance function. Portions of the program meet criteria for four hours of Category 1 CME credit.

Contact the AHA, 840 N. Lake Shore Drive, Chicago 60611.

Law-Medicine Seminars

The American Society of Law & Medicine will conduct several seminars this fall. "Legal Controversies in Nursing" will be studied in New York City, Sept. 23 and 24. "Critical Issues in Health Law" is the subject for the meeting in Boston, Oct. 13 and 14. "Health Care Financing" is the topic at Washington, D.C., Oct. 20 and 21. The Ambassador West Hotel in Chicago will host a seminar on "Medical Determinations in Workers' Compensation," Oct. 24 and 25. "Credentialing of and Hospital Privileges for Health Care Providers" is the subject of the meeting at St. Louis, Nov. 10 and 11.

For full details write the Society at 765 Commonwealth Ave., 16th Floor, Boston 02215.

Office Computers

"Do I Need An Office Computer?" is the subject of a conference to be sponsored by the Bethesda Hospital at the Westin Hotel, Cincinnati, Oct. 15. Tuition is $95. Faculty includes physicians who own computers and make them work. In addition to the program, exhibitors will display hardware and software and discuss the proper equipment for each practice.

Register with Tom O'Connor, Bethesda Hospital, 619 Oak St., Cincinnati 45206—(513) 569-6337.

Biofeedback Meeting

Oct. 1 is the deadline for submitting papers for the 15th annual meeting of the Biofeedback Society of America, to be held at the Regent Hotel, Albuquerque, N.M., March 23-28, 1984. Workshops will be conducted during each day of the program.

Contact the Society at 4301 Owens St., Wheat Ridge, Colo. 80033—(303) 422-8436.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

G.I. Malignancies

The Cincinnati Cancer Conference II will be on G.I. malignancies. It is scheduled for the Westin Hotel, Cincinnati, Nov. 4 and 5. Registration fee, which includes lunch, is $170. The meeting is sponsored by the Bethesda Hospital.

Contact Tom O'Connor at the Hospital, Location 00348, Cincinnati 45264, or phone (513) 569-6336 for more information or for registration forms.

Cardiology Board Review

The American College of Chest Physicians will conduct a "Cardiology Board Review and Cardiology Update" at the Knickerbocker Hotel in Chicago, Sept. 21-24.

The program is approved for 34 Category 1 CME credit hours. The cost for ACCP members is $350, for nonmembers $400.

Contact Dale E. Braddy, Director of Education, ACCP, 911 Busse Highway, Park Ridge, Ill. 60068.

Oncology Seminar

Highlands Baptist Hospital, Louisville, conducts its sixth annual Topics in Medical Oncology Seminar Nov. 15. "Creative Arts Perspectives on Symptom Management" will be the subject for the morning and afternoon sessions. "Primary Treatment of Breast Cancer" will be covered in the evening session. The fee is $25, which includes lunch, breaks and educational hand-outs. The morning session is directed to nurses, social workers, chaplains and ministers with cancer patients. The evening session is directed to physicians and others who are interested.

Contact Barbara Janes, Highlands Baptist Hospital, 810 Barret Ave., Louisville 40204—(502) 561-3432.

Family Therapy

Members of ISMA are invited to a workshop on "The Process of Family Therapy" to be conducted by Salvador Minuchin Sept. 9 and 10 at the Humana Hospital University, Louisville. The registration fee is $125 (students $85).

For registration form write to Family Studies, Inc., P.O. Box 1967, Drexel Hill, Pa. 19026.

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PUBLIC HEALTH NOTES

There are two rather newly recognized fatal types of meningoencephalitis of which physicians should be aware. Both are caused by free-living "soil" amoebas previously thought to be harmless.

One type is an acute, fulminating meningitis that follows nasopharyngeal infection and progresses rapidly to death of the patient in a matter of about 6 to 10 days. The victim is usually a healthy child or young adult. The organism responsible for this type is *Naegleria fowleri*. Infection is most often contracted from swimming or diving in polluted water harboring this species. *Naegleria* in water invade the nasal mucosa and olfactory nerves and extend through the cribriform plate to the meninges. The highly destructive amoebas multiply rapidly in the brain, mostly in perivascular areas of the gray matter. Cases generally have occurred in warm climates and in the United States in Virginia, Florida and California. Thus far none has been reported from Indiana.

Although such remains to be learned about the epidemiology, sufficient cases have surfaced to show that *N. fowleri* can become a disease agent of some public health importance. When a recreational body of water develops a favorable habitat for prolonged maintenance of this species, small clusters of cases occur over a period of time, as happened in Florida and Virginia. Such occurrences have necessitated permanent closing of some areas to swimming. The overall risk of infection from swimming in *Naegleria*-infested waters is unknown but probably quite small. In Florida, millions swim in lakes that are known to contain *N. fowleri*; yet few cases are reported.

Cases of *Naegleria* meningoencephalitis also have been traced to other types of soil-contaminated water with naturally or artifically elevated temperatures. One episode resulted from an Australian water supply that was transported through overland pipelines heated by the sun. Soil-contaminated, heated swimming pools, natural thermal pools, mineral baths, mud puddles, and water heated by discharge from power generating plants have also been implicated.

The second type of fatal brain disease is characteristically a more chronic or subacute meningoencephalitis which imitates other intracranial diseases such as chronic bacterial, fungal or viral, and therefore should be suspected as an alternate possibility for these infections, or even vascular or neoplastic diseases. The causative amoebas belong to the genus *Acanthamoeba*, of which there are several known pathogenic species. Amoebas are of lower virulence than *N. fowleri* and produce granulomatous lesions or sometimes submeningeal brain abscesses. The incubation period is unknown, but probably varies greatly. No case has yet been recognized before death; however, all of the few confirmed have occurred in debilitated or immunosuppressed persons without histories of intranasal exposure to contaminated water.

The source and mode of transmission for *Acanthamoeba* is ill-defined. Cysts have been cultured from nasopharyngeal exudates, and it is believed that cysts are inhaled in dust. Antecedent respiratory infection is probable, hematogenous spread apparently occurs, and there is extensive vascular injury to cerebral vessels. Some *Acanthamoeba* species also have been found in skin lesions and are especially destructive when they invade the eye.

The recognition of free-living amoebas as potential pathogens is founded on some excellent research conducted by a native Hoosier, Dr. Clyde G. Culbertson, experimental pathologist, and his associates, Eli Lilly and Company. While working with polio vaccine in 1958, they observed cytopathic changes in tissue cultures suggestive of a live virus. They identified the agent, however, as an amoeba—the now classic *Acanthamoeba* A-1 strain, *A. culbertsoni*—and proved its pathogenicity for mice and monkeys.

The extent to which infections occur is not known. Since the first reported human cases in 1965-1966, fewer than 200 worldwide have been documented.

The diagnosis of both types of free-living amoebic meningoencephalitis prior to death of the patient—and this has been seldom—has usually been dependent on alertness of the physician or the laboratory examiner to the possibility of amoebic involvement. Diagnosis is made by demonstration of the amoebas in direct examination or culture from nasal fluid, spinal fluid, or brain tissue. In *Naegleria* infections, lumbar punctures typically reveal amoebas, increased numbers of erythrocytes and leukocytes (predominantly polymorphonuclear), high protein concentrations and low glucose levels. With *Acanthamoeba* involvement, the spinal fluid is less apt to show amoebas and lymphocytes may predominate. Antibody studies can be made for *Acanthamoeba* infections, which may in some instances lead to the diagnosis but are probably of little assistance in the case of the rapidly fatal *Naegleria* disease.

Treatment is not generally effective except in the very early stages of *Naegleria* meningitis and currently consists of intensive administration of amphotericin B along with miconazole and rifampin (and some say tetracycline). Patients, usually children, who develop severe respiratory syndrome after swimming in other than well-kept swimming pools, should be suspect and nose and throat discharges examined for amoebas so that, if amoebas are found, treatment may be started before the advent of meningeal symptoms. Early spinal fluid examinations may also permit timely diagnosis and treatment. There is no known treatment for *Acanthamoeba* infection. Sulfadiazine has been found effective experimentally, but there has not yet been a human case diagnosed before death to treat with the drug.

Although the literature on free-living pathogenic amoebas is now extensive, much remains to be learned. A number of excellent discussions and reviews have been published and are worth consulting for more detailed information. For further information, contact Kathleen Harper, Microbiology Division, Indiana State Board of Health, or, if needed, the Centers for Disease Control, Atlanta, through the State Board of Health.

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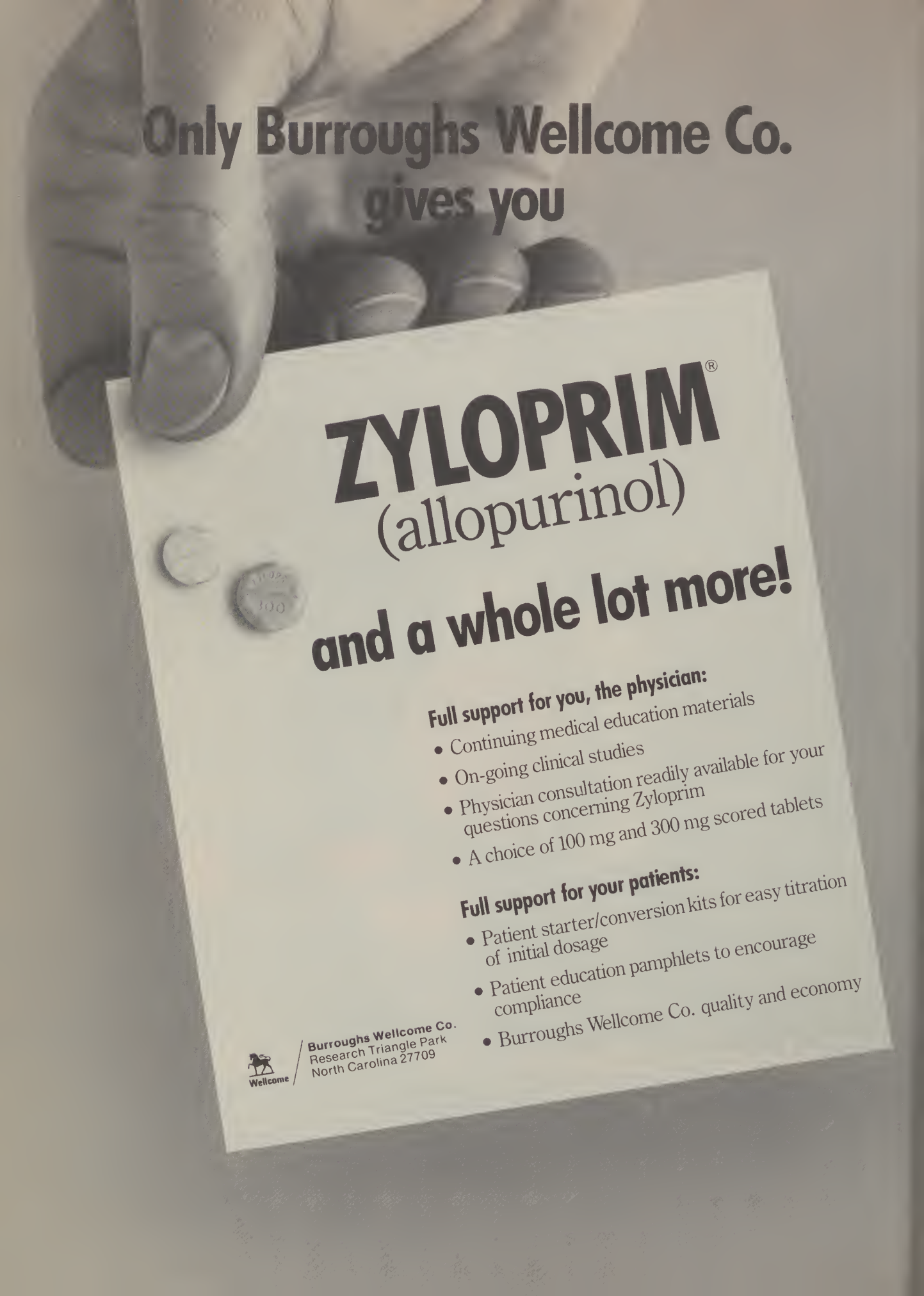
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WILLIAM M. DUGAN, JR., M.D.
Clinical Oncology Center
Methodist Hospital of Indiana, Inc.

New information from
Indiana Division
American Cancer Society, Inc.
4755 Kingsway Dr., Suite 100
Indianapolis 46205

EVERY PHYSICIAN'S OFFICE—A CANCER DETECTION CENTER

CANCER CORNER

The National Board of Directors of ACS has approved the recommendation of the National Service and Rehabilitation Committee and the Reach to Recovery Advisory Subcommittee to adopt "Policies and Guidelines for Pre-Operative Visits" to be incorporated into the existing Reach to Recovery service program. Reach to Recovery volunteers who make pre-operative visits to prospective mastectomy patients will be specifically selected, screened and trained to interact with pre-operative patients.

Because of changes taking place in the processes of diagnosis and treatment of breast cancer, there is sometimes a period of several days between the initial diagnosis and its confirmation, and then another period during which the treatment modality is decided upon. This can be a frightening time for a woman who perceives breast cancer as a threat both to the quantity and the quality of her life.

Many physicians who have requested Reach to Recovery visits for their post-mastectomy patients are now requesting pre-operative visits. They value the volunteer visitor as part of the health-care team. They recognize that even with assurances from doctors, nurses, and other professionals concerning the quality of life following treatment for breast cancer, there is no substitute for the visual proof received through a visit from an attractive, well-adjusted volunteer who comes uniquely qualified to share non-medical concerns and reduce the burden of stress for the patient.

Pre-operative visits will be made a part of the overall Reach to Recovery program. Since volunteers making pre-operative visits may be exposed to higher levels of patient anxiety and stress, careful attention will be given to the selection and training of pre-operative visiting volunteers. Physicians should contact the local ACS unit about this service.

Breast reconstruction visitation program: Reach to Recovery has expanded its services to provide information on breast reconstruction to post-mastectomy patients who are considering the operation(s). Reach to Recovery volunteers who participate in this program will be trained to interact with the post-mastectomy patient. A copy of the Breast Reconstruction Visitation Program Manual (Code #4629) can be acquired from the Indiana Division of ACS—317-257-5326.

Bibliography on Breast Reconstruction Following Mastectomy: As part of the package on Breast Reconstruction, bibliographies for both lay and professional individuals have been compiled by the Medical Library of the National ACS. These bibliographies, which include listings of periodicals, books and pamphlets, are a source of information for individuals interested in knowing more about breast reconstruction. Request the Professional listing by Code #0441 and the Lay listing by Code #0442 from the Indiana Division of ACS—317-257-5326.

Breast Reconstruction Audiovisual Presentation: A 35 mm filmstrip (Code #4631) and a slide set (Code #4627) were produced by the National ACS and approved by the appropriate medical committees of the ACS. The audiovisual presentation describes breast reconstruction and the procedures used to achieve a breast mound; it identifies the benefits and risks of breast reconstruction, and answers commonly asked questions about the procedure. It can be shown to mastectomy patients contemplating breast reconstruction and can be used as a teaching aid for Reach for Recovery breast reconstruction candidates. It may also be of value to health care professionals who come in contact with post-mastectomy patients interested in breast reconstruction.

New Patient Education Pamphlet—"Exercises After Mastectomy—Patient Guide": This pamphlet, reviewed and approved by medical committees of the ACS, provides general guidelines to help the mastectomy patient achieve full use of the affected arm. It has complete instructions on how to do specific exercises aimed at attaining adequate shoulder motion. The patient is advised to use the information contained in this pamphlet only with the approval of her physician. Refer to Code #4624-PS when requesting a copy of the pamphlet from the Indiana Division of the ACS—317-257-5326.

Risks of Mammography: The ACS National Task Force on Breast Cancer Control, as approved by the Medical and Scientific Committee and the Board of Directors, has prepared a statement on mammography. In summary: The American Cancer Society believes that each physician must balance the anticipated benefits and the potential risks of mammography in assessing the use of mammography for the individual woman. Just as it is important to avoid needless risks, it is imperative to avoid needless cancer deaths due to delayed diagnosis and an unreasonable fear of mammography. The medical profession and the public must recognize that the proper application of mammography can save lives.

Breast Cancer Examination Guidelines: For women *without symptoms* the ACS recommends the following guidelines for periodic examination for cancer of the breast:

1. Women 20 years of age and older should perform breast self-examination every month.
2. Women 20 to 40 should have a physical examination of the breast every three years, and women over 40 should have a physical examination of the breast every year.
3. Women between the ages of 35 and 40 should have a baseline mammogram.
4. Women under 50 should consult their personal physicians about the need for mammography.
5. Women over 50 should have a mammogram every year when feasible.
6. Women with personal or family histories of breast cancer should consult their physicians about the need for more frequent examinations, or about beginning periodic mammography before age 50.

Hepatobiliary Imaging

ASLAM R. SIDDIQUI, M.D.
Indianapolis

Tc-99m IDA Imaging Is a Simple, Rapid and Noninvasive Method of Evaluating Various Hepatobiliary Disorders . . .

From the Division of Nuclear Medicine, Dept. of Radiology, Indiana University School of Medicine, Indianapolis.

Correspondence and reprints: Division of Nuclear Medicine, P-14, Indiana University Medical Center, 926 W. Michigan St., Indianapolis, Ind. 46223.

IODINE-131 labeled rose bengal was introduced in the mid 1950s to study the hepatobiliary function. Despite the shortcomings of I-131 as the label, this radiopharmaceutical remained as the standard agent in the nuclear medicine laboratory until the late 1970s when technetium-99m labeled lidocaine (Tc-99m IDA) derivatives made their appearance.[1] They are rapidly metabolized by hepatocytes and excreted into the biliary tract. Of this group of compounds, diisopropyliminodiacetic acid (Tc-99m DISIDA) appears to be the best overall agent.[2,3] It is comparable to other IDA compounds in the lower bilirubin ranges, and much better when the bilirubin is around 20-30 mg/dl. Furthermore, Tc-99m DISIDA is presently the only IDA analog approved by the FDA for hepatobiliary imaging in humans.

Radiation Dosimetry

The following radiation absorbed dose data are provided by the manufacturer (Hepatolite Tc-99m-Disofenin, New England Nuclear, Boston, Mass.):

Target Organ	Rads/mCi
Gallbladder	0.50
Liver	0.05
Small intestines	0.22
Large intestines	0.30
Urinary bladder	0.09
Bone marrow	0.03
Whole body	0.02

Several factors will alter the determination of radiation dosimetry. These include the patient's age, presence or absence of obstruction and hepatocellular disease.

Technique

It is very important that the patient be fasting for at least two hours (preferably longer) prior to the Tc-99m IDA scan. Visualization of the gallbladder in a group of normal subjects was reduced by more than 50% in the non-fasting state.[4] It is speculated that cholecystokinin, released in response to food in the duodenum, stimulates the gallbladder to contract, which prevents the radioactivity from getting in. Long-term fasting (two-three days or more) can also cause problems. This is probably due to gallbladder atony and bile stasis secondary to lack of cholecystokinin stimulation, causing decreased flow of the tracer into the gallbladder. This can be overcome by giving these patients intravenous cholecystokinin prior to the injection of Tc-99m IDA.

Since Tc-99m IDA is a dynamic study, all images probably should be obtained for the same time. Liver morphology can be studied during the "hepatocyte" phase (first 15 minutes). Serial supine anterior images over the abdomen are obtained for at least one hour. Normally by that time the common bile duct, gallbladder and gastrointestinal tract are all visualized. If there is no radioactivity seen in any of these structures, delayed images for up to four hours (24 hours in some instances) should be obtained. Later images can be omitted if there is very little activity left within the liver. Right lateral and oblique views are extremely helpful in clarifying some confusing images and probably should be a routine part of the study.

In a normal person the common hepatic duct, gastrointestinal tract and gallbladder are visualized by 30 to 40 minutes and there is considerable diminution of the radioactivity in the liver by 60 minutes. (*Figure 1*). Renal and urinary bladder activity is almost always noted. The degree depends upon the IDA compounds used.

Indications

The list of the clinical situations where hepatobiliary scintigraphy is beneficial seems to be forever expanding. Currently, the Tc-99m IDA study is considered to offer useful information in the following:

1. Determination of cystic duct

TABLE 1

	No. of Patients	Sensitivity (%)	Specificity (%)	Accuracy (%)
Stadalnik (Clin Nucl Med 3:142, 1978)	120	100	100	100
Fonseca (Clin Nucl Med 3:437, 1978)	113	100	100	100
Freitas (JAMA 244:1505, 1980)	186	97	87	94
Matolo (SGO 150:521, 1980)	341	92	97	95
Szlabick (Arch Surg 115:540, 1980)	117	100	97.6	99.2
Weissmann (Radiology 138:167, 1981)	296	95.2	99.2	97.6

Table 1: Summarized results from several studies on the usefulness of Tc-99m IDA imaging in the diagnosis of acute cholecystitis.

patency—acute cholecystitis

2. Evaluation of the jaundiced patient
3. Evaluation of the post-surgical patient
4. Evaluation of traumatic or post-operative bile leaks
5. Evaluation of enterogastric reflux
6. Evaluation of certain colloid liver scan abnormalities
7. Evaluation of liver transplant function

Acute Cholecystitis

Clinical signs and symptoms are not always reliable in the diagnosis of acute cholecystitis. Oral cholecystography is not very convenient in these patients and the absorption of the contrast is unreliable. Intravenous cholangiography can be used; however, there is a high rate of adverse contrast reaction[5] and even with tomography there is a significant false-positive rate.[6] Ultrasonography offers anatomic detail and even a few millimeter size stones can be defined. There are approximately 12 million women and 4 million men in the U.S. with gallstones and 800,000 individuals will develop them each year, most of whom are asymptomatic.[7] Therefore, detection of stones floating in the gallbladder does not always mean acute cholecystitis even in an acutely ill patient. Demonstration of stone in the cystic duct is the key ultrasonographic finding for the diagnosis of acute cholecystitis; however, it is the most difficult area for the ultrasonographer to evaluate and most likely to cause a false-negative study.[8]

Tc-99m IDA cholescintigraphy is a safe and simple technique requiring no special expertise or sophisticated equipment. There are no adverse effects and hyperbilirubinemia (up to 30mg/dl with Tc-99m DISIDA) is not a problem. Also serendipitous information about liver and other abdominal organs can be obtained.

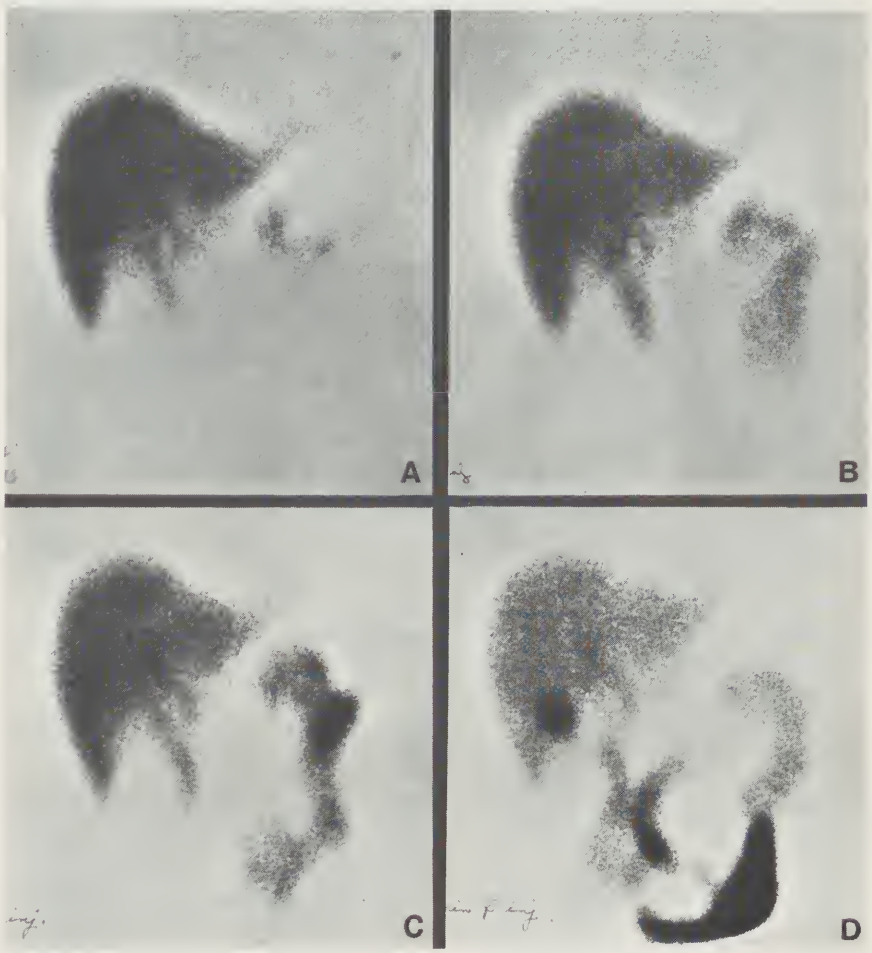


FIGURE 1: Tc-99m IDA scan in a normal person. The images are at 10(A), 20(B), 30(C) and 40(D) minutes after the injection. Common duct, duodenum and jejunum are visualized by 10 minutes. Gallbladder is seen in the 40 minute image (D).

The diagnosis of acute cholecystitis

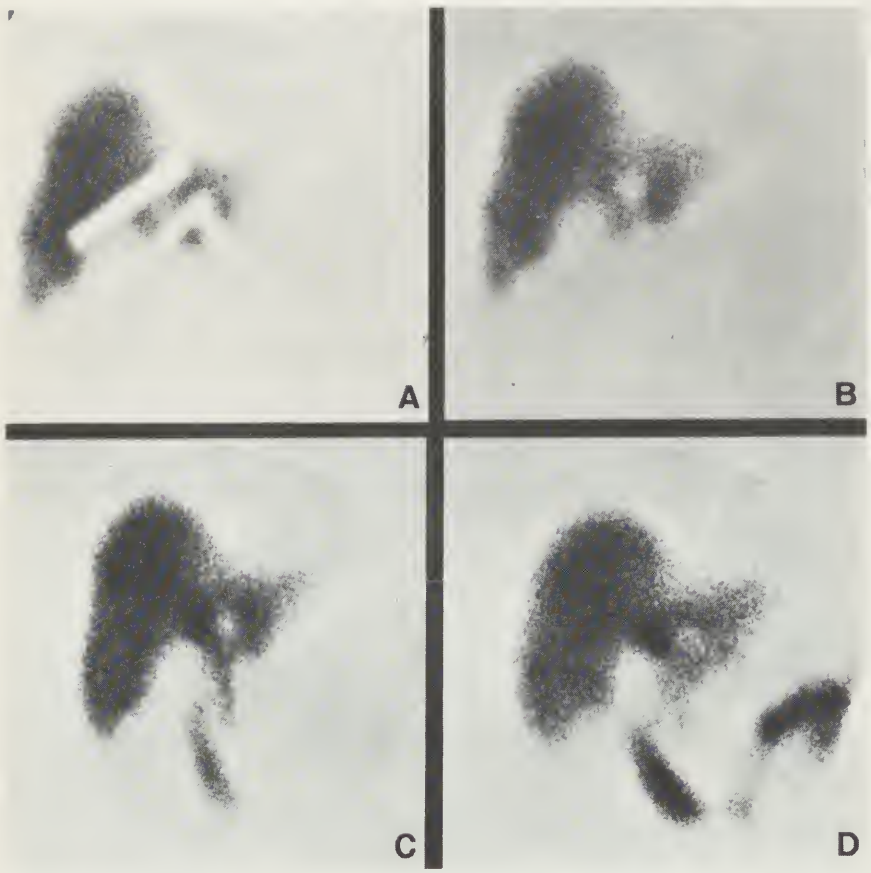


FIGURE 2: Tc-99m IDA scan in acute cholecystitis. The images are at 5(A), 15(B), 40(C) and 180(D) minutes after the injection. There is good hepatic uptake and excretion without visualization of the gallbladder. Cystic duct obstruction was confirmed at surgery.

(obstruction of the cystic duct) is established when there is normal hepatocyte uptake and common bile duct excretion and the gallbladder is not visualized over a period of four hours in a fasting patient (*Figure 2*). The efficacy of the hepatobiliary imaging in the evaluation of this problem has been confirmed by several studies (*Table 1*).

Delayed imaging is essential. More than one-half of the patients with chronic cholecystitis will have nonvisualization of gallbladder during the first hour; however, many of these patients will have gallbladder visualization if the imaging is continued for up to four hours. The delayed visualization is probably because of impaired diffusion of Tc-99m IDA into the gallbladder filled with viscous bile or sludge. Since cholecystokinin contracts and empties the gallbladder, pretreatment with it will permit visualization of gallbladder in patients with chronic cholecystitis.[9]

Acute acalculous cholecystitis is a rare disorder, and in most cases the scintigraphic pattern is similar to acute calculous cholecystitis; however, in a few cases the gallbladder fills normally.[10] If the gallbladder does fill, because of the inflammation of the wall, the administration of cholecystokinin will not elicit any contractile response. On the other hand, a normal gallbladder will empty out promptly in response to cholecystokinin.

There was some concern that acute pancreatitis may produce false-positive (nonvisualization of gallbladder) Tc-99m IDA scans; however, recent studies indicate that it is not a problem.[11]

Jaundice

Tc-99m IDA imaging can provide useful information in differentiating medical jaundice (hepatocellular disease) from surgical (obstruction), even when the bilirubin levels are elevated. In hepatocellular disease there is a prolonged blood pool phase followed by delayed passage through the liver and delayed appearance of the radioactivity in the gastrointestinal tract. Complete biliary obstruction is manifested by slow blood clearance and liver uptake and nonvisualization of the gallbladder and the gastrointestinal tract for up to 24 hours. Vicarious excretion of the radioactivity through the kidneys is usually marked.

Depending upon the degree, patients with partial obstruction may have normal blood pool clearance and hepatic uptake of the Tc-99m IDA; however, there may be delayed appearance and prolonged retention of the radioactivity in the common bile duct (*Figure 3*). Ductal dilatation cannot be accurately evaluated. The appearance of the dilatation is most probably secondary to radiotracer concentration rather than real increase in the lumen size.[12] The appearance of the tracer in the gastrointestinal tract may be delayed by several hours.

When the serum bilirubin levels are greater than 10 mg/dl, these patterns start to overlap. The higher the bilirubin levels, the more difficult it is to distinguish hepatocellular disease from obstruction, even with 24-hour images.[13] Computer-derived time-activity curves from the regions of interest over the liver and blood pool can be of some help in this differentiation.[14,15] These curves also have been of help in the evaluation of jaundice in infants (neonatal hepatitis versus biliary atresia).[15]

Postoperative Patient

Technetium-99m IDA imaging is often helpful in elucidating the cause of symptomatology in the post-hepatobiliary surgery patients.[16] A retained stone in the common bile duct will show an obstruc-

tive pattern on the hepatobiliary imaging. In these patients ultrasound may not be helpful because of the presence of gas in the ducts and because the ducts may have been dilated before the surgery. Cystic duct remnant can be identified; however, delayed views are necessary even when the liver, common duct and gastrointestinal tract are visualized normally in the first hour. In one series, 7 of 11 cases of cystic duct remnant would have been missed if late images were not obtained.[16] Tc-99m IDA imaging can also accurately assess the function of biliary enteric anastomosis at any level of bypass in a physiologic antegrade way.[17] For proper interpretation of these studies it may be necessary to consult the surgeon.

Bile Leaks

Bile leaks can be post-traumatic or post-hepatobiliary surgery. Although Tc-99m IDA imaging is non-invasive and is a very sensitive method of detecting bile leaks, the source of the leak cannot always be localized.[16,18] If the bile leak is subcapsular, intrahepatic or in the gallbladder region, a focal defect will be seen in the "hepatocyte phase" which will gradually fill in with time and have uptake greater than the liver parenchyma itself. The pattern of leakage into the peritoneal cavity is easy to identify (*Figure 4*). Delayed images are mandatory since the leaks can be slow and it may take several hours for an identifiable amount of radioactivity to accumulate.

Enterogastric Reflux

Reflux of bile into the stomach produces the bile gastritis syndrome. The etiologic factors include disorders of anteroduodenal motility, incompetent pyloric sphincter and gastric surgery, the last being the most common cause. Tc-99m IDA imaging can detect the enterogastric reflux noninvasively; however, a computer will be necessary if quantification is needed. Enterogastric reflux is expressed as a percent of total excreted radioactivity (duodenum, intestines and stomach). To enhance bile excretion, cholecystokinin may be given once there is radioactivity within the gallbladder.[19] The use of cholecystokinin is probably not necessary in evaluation of patients with gastroenterostomies suspected of having enterogastric reflux.[20]

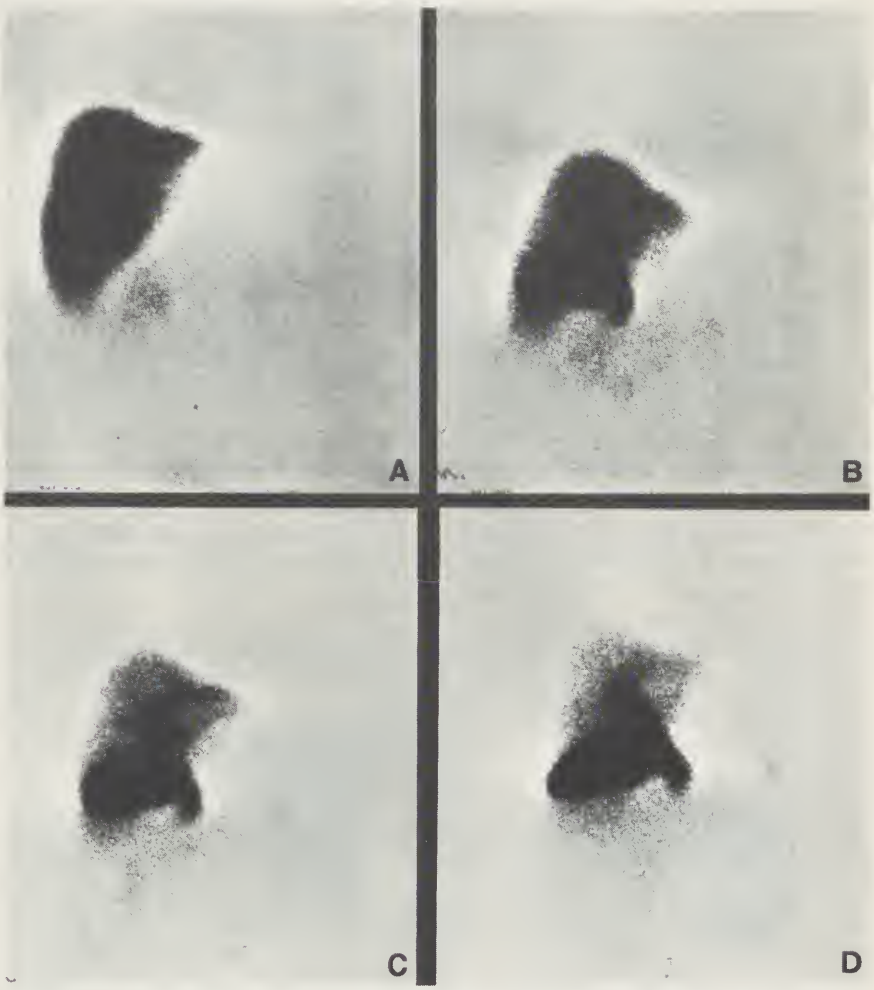


FIGURE 3: Tc-99m IDA scan in bile duct obstruction. The images are at 10(A), 20(B), 40(C) and 120(D) minutes after the injection. There is good hepatic uptake. The radioactivity gets into the common duct and the gallbladder; however, there is very little radioactivity in the gastrointestinal tract. A common bile duct stone was discovered at surgery. Activity inferior to the liver in early images (A&B) is in the kidneys.

Complimentary to Liver Imaging

Tc-99m IDA imaging can be used to clarify the nature of some of the focal abnormalities seen on the colloid liver imaging. An intrahepatic or prominent gallbladder can be distinguished from a tumor[21] (*Figure 5*). The lesions that may present as areas of decreased uptake on the colloid scan and have increased uptake on Tc-99m IDA imaging include adenoma, hepatoma, focal nodular hyperplasia, dilated hepatic duct, bile leak, choledochal cyst, Caroli's disease, cystadenoma of liver and hepatic duct diverticulum.[22]

Occasionally, the left lobe of the liver is enlarged or displaced into the left upper quadrant simulating a spleen, especially if the patient has had prior splenectomy. Since Tc-99m IDA compounds are taken up by the hepatocytes and not by the

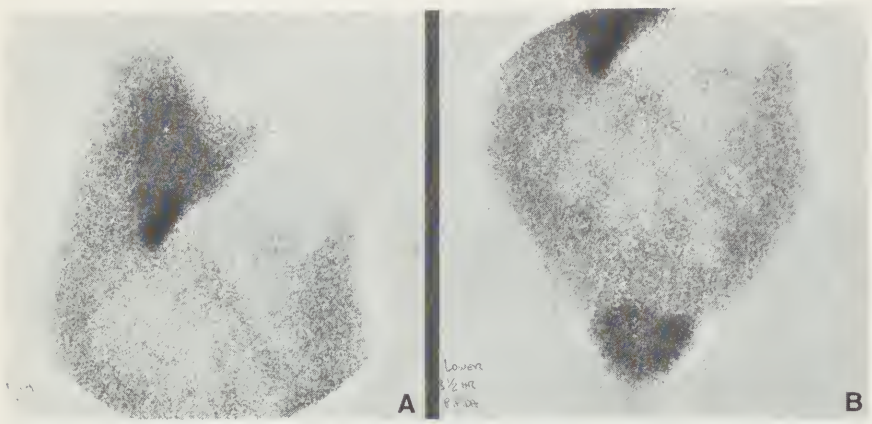


FIGURE 4: Tc-99m IDA scan in biliary leak. These anterior abdomen images were obtained 3½ hours after the injection in patient with recent cholecystectomy for chronic cholecystitis. The bile duct appears dilated and there is radioactivity throughout the abdomen. At reoperation retained common duct stone and bile leak into the peritoneal cavity were noted. Radioactivity accumulated in the lower portion of the abdomen (B) is in the urinary bladder.

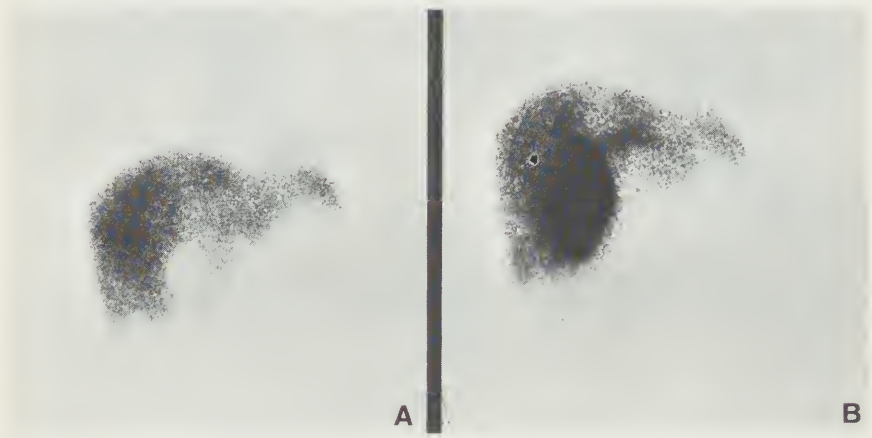


FIGURE 5: A is a colloid scan showing a space occupying lesion in the liver. Tc-99m IDA scan (B) performed the same day clearly demonstrated that the liver "lesion" was a prominent gallbladder.

reticuloendothelial cells, they can be used to clarify the anatomy in such patients.[23]

Liver Transplant

Liver transplantation is a complex procedure confined to a few centers only. Most cases of transplant failure are due to biliary complications. Preliminary findings indicate that Tc-99m IDA imaging can be used to differentiate rejection from biliary anastomotic problems.[24]

Other Uses

Tc-99m IDA compounds can also be used in evaluation of biliary dyskinesia syndrome where the patients have biliary tract symptoms with no abnormalities on ultrasonography or cholecystography. This is achieved by measuring gallbladder ejection fraction.[25,26] Cholecystokinin is administered when the gallbladder is full and then serial images are obtained. Ejection fraction is derived by dividing the change in gallbladder counts by the pre-cholecystokinin counts. This technique is still considered experimental and has not been standardized. By one technique the normal ejection fraction was 35 ± 14% at 3-5 minutes after the injection of cholecystokinin.[26]

In summary, Tc-99m IDA imaging is a simple, rapid and noninvasive method of evaluating various hepatobiliary disorders (*Table 2*). Additional helpful information is obtained during the blood pool, hepatocyte, renal and intestinal phases.[27] These include aneurysm, effusion, organomegaly and space occupying lesions. Renal masses, obstruction and displacements and intestinal malrotation, displacement and obstruction have also been diagnosed.

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TABLE 2

	Order of Tests
Acute cholecystitis	Tc-99m IDA
	Ultrasound
Chronic cholecystitis	Ultrasound
	Oral cholecystography
	Tc-99m IDA
Post-cholecystectomy problems	Tc-99m IDA
	Intravenous cholangiography
	Ultrasound
Cholestasis	Ultrasound
	Tc-99m IDA
Neonatal jaundice	Tc-99m IDA
	I-131 Rose Bengal

Table 2: Suggested investigative strategies in some common hepatobiliary disorders.

Diuresis after Hemodialysis Associated with Ultrafiltration in Congestive Cardiac Failure

Therapeutic Use in Resistant Cardiac Failure with Conventional Therapy

S. K. DHAR, M.D.
R. JEEVAN, M.D.
L. LENYO, M.D.
Terre Haute

SEVERE FLUID OVERLOAD still presents a therapeutic challenge with congestive cardiac failure (CHF) in spite of available potent diuretics (especially loop diuretics such as ethacrynic acid and Furosemide). Use of pre-load and after-load reducing agents in conjunction with diuretics and cardiac glycoside (Digoxin) are helpful in most patients with congestive cardiac failure.[3,9] However, a minority of patients may not respond to available medical therapy.

Recently, ultrafiltration during hemodialysis procedures to remove excess water and sodium from the blood has been reported to be useful in dialysis patients with over-hydration and in patients with diuretic-resistant fluid retention.[4,5] Following these reports, we applied the technique of ultrafiltration with hemodialysis in two essentially pre-terminal congestive cardiac failure patients resistant to available medical therapy (digitalis, loop diuretics, pre-load and after-load reducing agents), and found clinical and biochemical improvement with commencement of diuresis after ultrafiltration.

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Acknowledgment: W. Krieble, M.D., A.P.S. Clinic, Terre Haute, and Ms. Sheila Rayhel for secretarial help.

Case #1

A 59-year-old man with history of congestive heart failure due to cardiomyopathy for 12 years was admitted with massive anasarca, painful abdominal edema, and scrotal edema of four weeks duration. Heart failure was not controlled with oral Furosemide 80mg, q.i.d.; Lanoxin .125mg, daily; Aldactone, 25mg, q.i.d.; Isosorbide 20mg, q.i.d; Nitrogylcerine Ointment 2% q 6 hours; Hydralazine 50mg, q.i.d.; and metolazone 5 mg, daily.

Physical examination on admission revealed that the patient had massive edema up to his nipples, with presence of ascites and scrotal edema, peripheral cyanosis, and marked wasting of the upper body, with increased jugular venous distention, blood pressure 80mm/Hg, and respiration 30/min. Cardiac examination showed cardiomegaly with S_3 gallop and Gr. III/VI ejection systolic murmur at apex. Lungs were clear on auscultation.

Laboratory studies showed: urinalysis: Sp. Gr. 1011, protein, sugar, blood—absent. Complete blood count (CBC) showed hemoglobin (Hgb) 9gm/dl with normal WBC and platelet count, serum albumin 3.3gm/dl. Prothrombintime (Protime) was 14.4 (control 12.3 sec.), normal activated partial thromboplastin time (P.T.T.), elevated blood urea nitrogen (BUN) 118mg/dl., creatinine (SCr) 6.3mg/dl, uric acid 16.5mg/dl, lactic dehydrogenase (LDH) 317 units, glutamic oxalo-acetic transaminase (SGOT) 115 units, glutamic pyruvic kinase (SGPT) 59 units, phosphorus 6.2mg/dl, urine osmolality 324 mosm/Kg, urine Na 52 meq. in spot urine, Serum Na 129 meq/L, K 5.7 meq/L.

Chest x-ray showed cardiomegaly without any active pulmonary disease. Echocardiogram showed uniform reduction of right and left ventricular contractility with no pericardial effusion. Arterial blood gasses with 40% O_2 showed PH -7.31, PCO_2 - 46 torr, PO_2 - 60 torr, HCO - 23mM/L. Patient's urine output, in spite of use of intravenous Furosemide, 320mg/day followed by ethacrynic acid 50mg every six hours with oral metolazone 10mg/day was 350mls/24 hours.

Because of painful scrotal edema, as well as pain in the abdomen due to stretched skin, the patient had paracentesis with 14 gauge angiocath and lost approximately 14 liters of fluid during the first 24 hours. However, the patient remained oliguric, tachypnic and confused.

Because of severe oliguria and deterioration of the patient's condition, he was put on hemodialysis with ultrafiltration on the fifth hospital day. By dialysis ultrafiltration, approximately 1,500 mls of fluid was removed. After the procedure, the patient's urine output increased to 100/mls an hour followed by 300-350mls/hour for 24 hours, and then 150-250mls/hour for the next 48 hours with improvement of his general condition. The patient lost approximately 95 pounds within three

weeks of his hospital stay. His renal function stabilized at BUN/Cr 56/2.7mg/dl.

Case #2

A 60-year-old woman with history of CHF due to ischemic heart disease for seven years was admitted with increasing orthopnea, edema of the legs, and oliguria of three weeks duration. Her heart failure was resistant to oral digitalis, Furosemide, Hydralazine, and salt restriction.

Physical examination revealed peripheral cyanosis, BP 110/70mm/Hg, pulse 110/min, resp. 26/min, increased jugular venous pressure, hepatomegaly, ascites, cardiomegaly with S_3 gallop, Gr III/VI systolic murmur at apex, and creptitation at lung bases.

The patient was treated with O_2 administration, oral Nitroglycerine 9mg b.i.d., Digoxin .125 mg daily, Aldactone 25mg, q.i.d., Captopril 25mg q daily, intravenous dopamine, nitroprusside, and Furosemide 240mg/day. In spite of these, urine output remained in the range of 15-18 mls/hour.

Laboratory studies: urinalysis, Sp.Gr 1018, 3+ protein, 3+ RBC, 3+ WBC, and moderate hyaline casts, spot urine Na 19 meq., Creat 62.5mg/dl, urine osmolality 287 mosm/L. Serum chemistries showed high BUN - 51.2mg/dl, SCr - 2.5mg/dl, Low Serum Na 123meq/L, high SGOT 760 units, LDH 763 units, SGPT 393 units, Bilirubin 4mg/dl with direct bilirubin 2mg/dl, and CBC was normal. Chest x-ray showed cardiomegaly with pulmonary venous congestion.

Because of severe oliguria and resistance to medical therapy, on the fifth hospital day the patient was started on hemodialysis with ultrafiltration for two hours. By ultrafiltration 1,750 mls of fluid was removed. Immediately following ultrafiltration, the patient started diuresis with urine output 300-400mls/hour for 72 hours with marked clinical improvement. After 72 hours her urine output remained 100/mls hour. On the ninth hospital day the patient became febrile and hypotensive, and died due to sepsis and cardiogenic shock.

Discussion

In the clinical situation of CHF, a number of pathophysiological mechanisms account for sodium and water retention—these mechanism include hemodynamics, hormonal and intra-renal physical factors.[1] It is believed that increased right heart pressure and venous pressure in the presence of decreased arterial filling lead to renal hypoperfusion and increased renal venous pressure, which in turn trigger hemodynamic and hormonal changes responsible for sodium and water retention.[1,2] Additionally, redistribution of renal blood flow from the renal cortex to medulla and activation of the renin-Angiotensin-Aldosterone system favor sodium and water retention.[1] Thus, angiotensin blocking agents (Captopril) may be of help in resistant congestive cardiac failure.[10]

Our patient (patient #2), however, did not respond to use of angiotensin converting enzyme inhibitors (Captopril). In our patient (patient #1) removal of extravascular fluid (ascitic) did not improve the clinical situation.[6] However, with initiation of dialysis with ultrafiltration and removal of 1,500-1,700 mls of intravascular fluid, the patient started having prompt diuresis within one-two hours. Moreover, initial non-responsiveness to diuretics disappeared. Our observations suggest lowering of intravascular volume is a most important factor in the initiation of diuresis.

Differentiation of intrinsic renal failure (acute tublar necrosis, interstitial nephritis, primary glomerular disease) from renal functional change associated with CHF may be very difficult as evidenced in our cases. Proteinuria, urinary sediment, urine, and serum osmolality, urine sodium, or fractional excretion of sodium may not be helpful in patients with CHF as they are treated with different drugs including diuretics or may often have an associated pathological condition (hypertensive nephrosclerosis).[8]

Response to ultrafiltration with diuresis suggests renal functional changes in our patients were functional rather than structural (acute tubular necrosis, primary glomerular disease) as found in hepatorenal syndrome.[7] Although evaluation of the mechanism of improvement in renal function after ultrafiltration in resistant heart failure needs to be investigated, we feel the process of ultrafiltration may be useful in clinical practice in initiation of diuresis in some patients with intractible CHF.

Summary

Dialysis and ultrafiltration to remove excess sodium and fluid from intravascular space is used in two cases of intractible CHF and in both cases prompt diuresis and response to diuretics were noted after ultrafiltration. Both of these patients clinically improved from their heart failure following ultrafiltration. We conclude ultrafiltration is a useful therapeutic adjunct in resistant heart failure for control as well as for initiation of diuresis.

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Diagnosis Related Groups: Medicare's Hospital Reimbursement System

Commentary

The DRG System Will Affect Doctors in Three Areas: Hospital Records, Utilization Review, and Cost Control . . .

DIAGNOSIS RELATED GROUPS (DRGs) are to be used by Medicare to determine the amount of hospital payment for in-patients. DRGs may also be adopted for use by non-governmental insurors later.

DRGs, most certainly, will produce the largest change in modern history in physician-hospital relations. The changes will occur in three situations: hospital records, utilization review and cost control and administration.

The process by which each hospital case may be assigned a DRG number is explained in the March issue of "The Medical Practice Letter."

Almost every hospital admission will be classifiable as belonging to one of the categories. Each one of the 467 groups contain various clinical conditions which are related according to two criteria:

- The first criterion is that all the cases falling within a particular DRG will be clinically similar, in that their principal diagnoses fall within one system of the body, and usually are treated by one clinical specialty.
- The second criterion is that all the diagnoses within one DRG normally use the same kinds and range of hospital resources, in particular, length of hospital stay.

Only one DRG is assigned to each hospital admission. The record abstract is processed through a computer that is programmed to automatically select the proper DRG. The computer program is called the Grouper. Information from the hospital chart such as the principal diagnosis, the other diagnoses, procedures, discharge status, sex, and age interact with a unique decision tree that characterizes each DRG.

The Grouper rejects the abstract if any of the key informational elements are missing, if the principal diagnosis is invalid or if a diagnosis code is used that is not acceptable.

Three DRGs are reserved for cases for which the data do not produce classification, for cases in which the patient dies in hospital, and for patients who sign themselves out without medical permission.

Code numbers are available in the computer to indicate various substantial complications and/or co-morbidities.

A substantial complication is one which originates in the hospital and prolongs the stay by at least one day in 75% of the cases. Co-morbidities are such conditions as angina pectoris, chronic airway obstruction or cirrhosis, when they are not directly connected with the principal condition.

A new word, "outliers," has been invented to designate the utilization status of a record for which either the hospital stay or the cost differs (either up or down) from the average for the DRG concerned.

Length of stay is the usual datum that causes the designation "outlier." All DRGs have established trim points as related to their dollar value. Trim points

are the high and low points between which cases are considered as average. Medicare regulations state that outliers are cases for which the standardized cost values are outside (up or down) three standard deviations from the geometric mean of the values for each DRG.

The sentence you just read is more esoteric than other parts of the DRG explanation. Read on! Standard deviations and geometric means will be in the Medicare computer; physicians will probably never see either one of them.

Since hospital payments are based on a standardized amount of money for each DRG, outliers are of considerable financial importance to the hospital. The doctor and patient are indirectly concerned since financial stringencies might possibly influence quality of care.

It is estimated that, based on the Medicare definition of outlier, about one half of one per cent of Medicare cases will turn out to be outliers. This is on the basis of cost only and not on length of stay.

Hospital management will investigate the outlier initially. The cause of excess cost may be due to data which are "AWOL" on the hospital chart. It may be due to improper coding of the case. Or, it may be due to complications that have not been placed in the hospital record. All such omissions must be processed in order to justify a reimbursement proportionate to the length of stay.

The hospital will also be interested in and involved with outliers because of variations in cost and/or length of stay that might be due to extremely high or low resource consumption. There may be implications of quality or risk management, the physician may have prolonged the hospital stay unnecessarily, or the patient may have been in the hospital longer while awaiting a skilled nursing facility admission.

DRGs have three principal uses:

Utilization Review: Patients within a DRG will have similar patterns of resource consumption. Comparisons in treatment among physicians and between hospitals will be facilitated. The coding plan makes it easy for the hospital Utilization Review Committee and for the review bodies to monitor diagnoses and to assess propriety of treatment.

Hospital Management: DRGs provide an almost perfect method of measuring and categorizing the case load of the hospital. This information aids the hospital in preparing for and furnishing the types of services and equipment in adequate numbers without creating an oversupply.

Reimbursement: Medicare now reimburses hospitals on an itemized basis. This may provide an incentive to use more services than necessary. Reimbursement by the DRG method will tend to reduce hospital care to the essentials and will tend to eliminate non-essentials.

The successful care of Medicare cases in hospitals is going to require the most careful attention to details and to record keeping. Clinical events of all varieties, whether classified as complications or not, must be entered in the hospital chart each day. Otherwise, clinical events may increase the cost of care. Stay may be increased by additional therapy. If the events are not made a part of the record immediately as they occur, the final summation for the DRG involved will be incomplete and the payment to the hospital will be insufficient to cover the costs.

Good record keeping, meticulous notation of all happenings (both good and bad), written rationalizations for treatments, and all other matters that will allow the Grouper to truly classify the hospital case will be the minimum needed to produce a computer report that will justify a reimbursement adequate enough to allow the hospital to continue to provide the best care possible.

Doctoring the hospital chart after the patient goes home won't do the job. It's the day-by-day record that is going to make it possible for Medicare to compensate the hospitals adequately.

The March 1983 issue of "The Medical Practice Letter," (Vol. 3, No. 3) contains an exhaustive and well organized outline of Diagnosis Related Groups. The issue may be obtained at a cost of $5 by remitting to The Practice Letter, 227 Everit St., New Haven, Conn. 06530.

Reimbursement by the DRG Method Will Tend to Reduce Hospital Care to the Essentials . . .

Secret to Japan's Success: Low Taxes

Commentary



RICHARD L. LESHER
President
U.S. Chamber of Commerce

DID YOU KNOW that there is a country whose productivity is 50% higher than Japan's? That's right. While we have all read and heard about the phenomenal productivity of the Japanese economy, one nation exceeds Japan Inc. by one-half.

Well, come, come you say. Speak up. Where is this economic giant? Is it one of those OPEC countries awash in oil? One of those tiny countries you need a magnifying glass to find on the map?

No, the most productive economy in the world is also the largest. It is the United States of America's. Despite our troubles, we lead Japan and all other countries in output per worker—productivity. American agriculture is three times as productive as Japan's. Our construction industry is twice as productive. Basic manufacturing is 25% more productive.

Then why all this fuss? Why is everyone talking so much about Japan? Is all this talk about the Japanese economic miracle just a myth?

No, the strength of Japan's economy is real enough. While our productivity is higher today, Japan's productivity is growing much more rapidly than America's. During the decade of the '70s, Japan's productivity grew at 7.4% each year, America's at only 2.6%. At this rate Japan will overtake us by the end of the century.

What, then, is the secret of Japan's rapid growth in productivity and GNP? Quite simply it is low federal spending, reduced marginal tax rates, and a government which understands that economic growth comes from a strong and vigorous private sector, not from big government.

Sound familiar? It should. In America we call this policy Reaganomics. And while Tip O'Neill and Ted Kennedy are still arguing against lowering the tax burden, and have proposed a budget that would dramatically increase taxes, the Japanese have been demonstrating the truth of supply-side economics for more than a generation.

Between 1950 and 1974, the Japanese government cut tax rates by roughly 11% every year. What happened? Their economy grew from a gross national product of $16 billion to more than $300 billion! And as tax rates were falling, the total revenue collection rose to more than $63 billion! While the liberal politicians ridicule supply-side economics here in America, the Japanese are laughing too, all the way to the bank.

Another factor in Japan's rapid growth is its high level of savings. The Japanese save more than 22% of their disposable income; Americans save only 6%. Should we be surprised that they are able to invest billions in research and development and the latest technologies?

There is no magic here. Congress taxes savings and investment heavily and, therefore, Americans save and invest less and less. In Japan there is no capital gains tax and virtually no tax on personal savings.

The Japanese are also frugal in their government spending. While our federal government is spending more than 25% of GNP this year, the Japanese government spends below 20%. With less money spent by the government, there is more left for the people.

We have the largest and most productive economy in the world. And we intend to keep it that way.

Following World War II, the Japanese borrowed a great number of ideas from us: the technology for transitor radios, computers and robots. It only seems fair that we learn from our Oriental friends that lower tax rates, limited government spending, and less red tape is the prescription for economic growth and job creation. Besides—if we remember the history of the American Revolution—it was our idea in the first place.

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Banking—Can Indiana Compete?

The Voice of Business

CHANGE, INNOVATION AND UPHEAVAL may now be greatest in . . . what would you guess? Computers and microchips? Biogenetics? Both would get a lot of votes. But high on the list would also be what most of us would consider to be that most staid and conservative of all industries: banking.

It used to be easy to figure out what a bank was. You kept your checking account in a bank and it didn't pay any interest. Banks were also the primary source of business credit. You probably kept your savings account in a savings and loan, and if you needed a mortgage that's probably where you went. For stocks and bonds you saw a stockbroker.

Those days are gone.

Legal and regulatory barriers are breaking apart, and banks are beset by innovative, new competitors. New "products" emerge by the month.

Banking's competitors now include the emerging financial supermarkets, such as Sears Roebuck, Merrill Lynch and Shearson/American Express. They operate nationally and are in many ways indistinguishable from banks. Indeed they're now openly shopping to enter the banking business and the results are starting to hit close to home.

An April 1 headline in the *Wall Street Journal* said, "Big Brokerages Study Buying Banks or Thrifts." By April 29, this had been translated into an Associated Press dispatch in the *Indianapolis News* which began and ended as follows: "The state's (Indiana's) third largest savings and loan association may be merged into Shearson/American Express Company . . . The possible merger of Union Federal with financial-giant Shearson is the latest in a move by brokerage houses to enter the banking industry."



JOHN W. WALLS
President
Indiana State
Chamber of Commerce

The S & L's themselves form a second group of competitors.

S & L's can branch almost at will and are no longer restricted to mortgage lending. This means that they, too, are hitting close. The April 21 *Indianapolis Star* highlighted a move by the state's largest S & L, First Federal Savings and Loan, to become First Indiana Federal Savings Bank. First Federal's chairman, Robert H. McKinney, noted that, "As First Indiana, we'll be able to do almost anything a bank can do." That's true. S & L's can now engage in commercial and consumer lending, once the bastions of banking activity.

Meanwhile, with much of the national financial community and many of their Indiana financial brethren aggressively and thoughtfully planning for the remainder of the century, many Hoosier bankers are gnashing teeth over their legal inability to follow suit. The reasons? In Indiana, banks can't cross county lines.

Banks cannot branch outside their communities. Banks cannot acquire other banks. Indiana law doesn't permit it. Legislation to permit multibank holding companies has repeatedly, and unwisely, failed in the General Assembly.

It may soon be too late to remove our anachronistic legal barriers in sensible, logical ways. Indiana's medium-sized banks (even the largest Indiana banks are only middle-sized in national terms) very likely are being targeted for takeover by the nation's banking giants, such as the Citicorps and Bank Americas.

Economies of size and scale will be needed to compete in the heated world of Money Market Deposit Accounts, Super-Nows and remote payment centers. And a certain size is necessary to develop the innovations the banking industry of the future will require.

Smaller community banks that are competitive and well-managed will survive and continue to serve those communities. The loss Indiana faces is the future inability of Indiana's own major banks to meet the larger financial demands of the Hoosier economy.

Multibank holding company legislation will doubtless be back when the legislature returns. For the good of the state's economy, it should pass . . . before it's too late.

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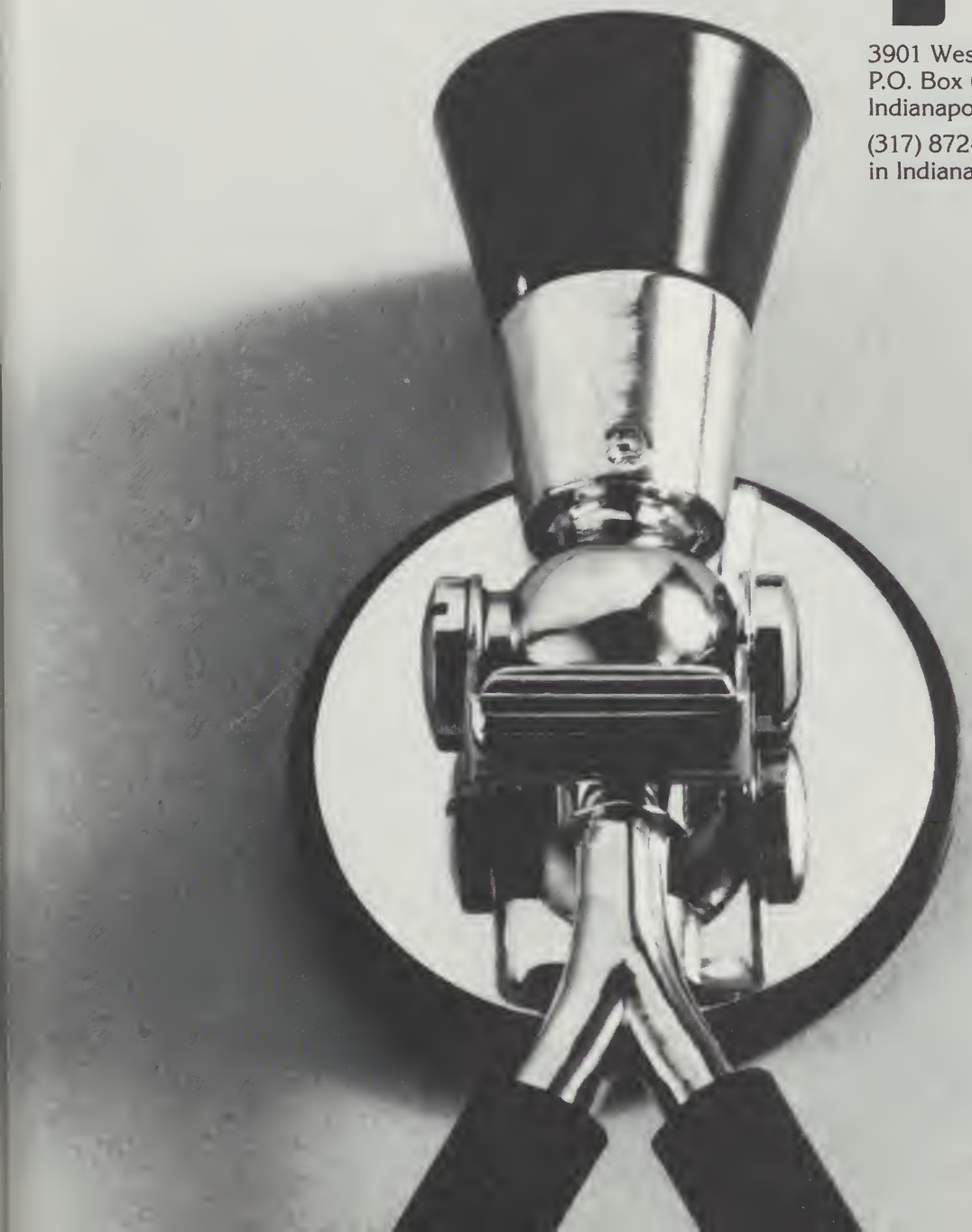
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EDITORIALS

The Krannert Institute

In his monthly newsletter recently, Dr. Glenn W. Irwin, Jr., vice president, Indiana University-Purdue University at Indianapolis, discussed the Krannert Institute of Cardiology. THE JOURNAL obtained Dr. Irwin's permission to reprint his comments, which follow:

Some of you already know this and the rest of you should . . .

Here in Indianapolis, at the Krannert Institute of Cardiology, is one of the world's foremost centers for research, education, and training in heart diseases.

The usual descriptive superlatives—first, best, top ten and such—are abused and over-used and I'll not use them to describe the Krannert Institute. The real measure of the institute's standing is in the esteem it has earned in the international community of cardiology. On this measure, no such center stands higher than the Krannert Institute.

In the history of cardiology, the Krannert Institute is ancient as well as honorable.

Its origins are in the years immediately after World War I when a new clinic in heart diseases was established at old City Hospital—it's Wishard Memorial Hospital now—by three distinguished physicians: Drs. Robert M. Moore, Cyrus J. Clark, and Kenneth G. Kohlstaedt.

The progress of the clinic was adopted by a pair of marvelous patrons in 1949—Herman and Ellnora Krannert—whose first gifts established the clinic's first fellowship in cardiology and began the development of its research staff and facilities.

This was the beginning of a partnership of philanthropy and science that endures in the Krannert Institute of Cardiology.

Most of you know the names I've mentioned so far—many of you remember these extraordinary individuals with great admiration and affection—and I know that most of you have noticed the institute's building as you've driven past Wishard Hospital on 10th Street. It is a yellow brick building with a pleasant look to it.

But I don't think many of my friends and colleagues are fully aware of the importance of this building in that international community of cardiology.

As one measure, the Krannert Institute is now in the 22nd year of a major research project funded by the National Heart, Lung, and Blood Institute to understand the causes and to discover the remedies for cardiac arrhythmias. This is one of the oldest continuing medical research projects in America . . . and it has been one of the most productive.

There is another measure, but this one cannot be described in numbers. The association of the Krannert Institute with our School of Medicine has meant that Indiana University physicians go into practice with superb preparation for the diagnosis and treatment of heart disease.

And around the world, in other research centers, are men and women who are practicing the research skills that they acquired as fellows in training at the Krannert Institute, here in Indianapolis.

Of course, the standing of the institute was not earned by its building nor by the technology of its laboratories. These are easily duplicated. The standing of the institute has been earned by outstanding men and women, and these are never duplicated:

Dr. Charles Fisch, Distinguished Professor of Medicine and director of the institute, Dr. Suzanne B. Knoebel, who is Herman C. and Ellnora D. Krannert Professor of Medicine, the immediate past president of the American College of Cardiology, and associate director of the institute. . .

Well, I'll not recite the roster of distinguished physicians and scientists on the institute's professional staff. But I will say it is their genius and vision, as well as their hard work, that make Indianapolis so famous in the world of cardiology.

Health Food Stores

Health food stores have been surveyed and studied by research associates of the American Council on Science and Health, an independent, nonprofit consumer education association. The council promotes scientifically balanced evaluations of food, chemicals, the environment, and human health.

Summation of the investigation is that health food stores usually give inaccurate information which is sometimes dangerous, many of the products have no nutritional value and those that do are overpriced.

"Our inquiries convinced us that customers cannot rely on the accuracy or safety of health and nutrition advice that they receive in health food stores . . . Many of the store personnel we talked to were sincere, well-meaning, sympathetic—and grossly misinformed."

Many of the clerks, when informed of symptoms which should indicate an urgent visit to a physician, did not give such advice and a few gratuitously advised against medical advice.

These were some of the results of visits or phone calls to 105 health food stores in New York, New Jersey and Connecticut.

"Health food stores are staffed by salespeople, not health professionals. Customers who ask these employees for medical advice are asking for trouble."

The PMA Foundation

The Pharmaceutical Manufacturers Association Foundation was organized in 1965 to improve the science of clinical pharmacology and to aid in the training of clinical pharmacologists. From a relatively modest beginning, contributions from member pharmaceutical companies have increased steadily. Total income last year was just below $1.5 million.

Approximately $13.5 million has been granted to a variety of educational programs since 1965. Five committees of advisers recommend the programs and the grantees who benefit from the various fellowships and faculty development awards. Dr. Robert H. Furman of Eli Lilly and Company sits on the Clinical Pharmacology Advisory Committee.

This year's PMA Foundation Annual Report memorializes Dr. Raymond M. Rice, former group vice president of Eli Lilly, who served, after retiring, as vice president of the PMA Foundation for many years, and who died Nov. 22, 1982. The foundation is realizing its mission of improving the supply of highly competent clinical pharmacologists. It now attracts donations from non-pharmaceutical entities and is well on its way to developing an important scientific group of scientists who will be needed in the discovery and development of the medicines of the future.

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EDITORIALS

NHI in the 1980s

Dr. Harry Schwartz, health economist at Columbia University, has completed a study of national health insurance for the National Center for Policy Analysis.

In discussing a rumor that national health insurance (NHI) may become the major political issue of the 1980s, Dr. Schwartz points out that none of the traditional arguments in favor of NHI are valid today.

● The first argument has been that "the health of Americans is unsatisfactory."

Schwartz' answer: The U.S. Surgeon General states that "the health of the American people has never been better." Between 1950 and 1980, the age-adjusted mortality rate for the U.S. declined by almost one-third. Between 1965 and 1981, the U.S. infant mortality rate was cut in half.

● Another argument is that "large numbers of American citizens cannot afford to pay for the health care they need." Dr. Schwartz' findings: "On the average, people with family incomes of less than $5,000 are seeing doctors more often than any other income group. They also spend more days in the hospital than any other income group—twice as many days, for example, as families with incomes of $25,000 or more. Overall, the study found that as family income rises, the use of medical services falls."

● The third argument is: "National health insurance can make quality health care available to all citizens, while controlling health care costs."

Schwartz sees it differently and with good reasons: "Because of Medicaid and Medicare, government spending on health care is increasing at twice the rate of private spending. Accordingly, extending similar programs to the rest of the population would cause medical costs to skyrocket.

"In addition, countries with NHI invariably resort to rationing schemes which treat people in a discriminatory way and cause long waiting lists for treatment. The study concludes that in such countries, the quality of care declines and medicine becomes 'more impersonal, more routine, and more bureaucratized.' "

Diagnostic Computer

A computer, to be useful and accurate as a means of clinical diagnosis, must be programmed with complete clinical data. In the past computers have not produced reliable results because of the insufficiency of databases. Medicomp of Virginia has a computer system that is extensive and complex enough to assure reliable results.

Programming for the new system is equivalent to a medical encyclopedia. Over 2,000 diseases, 800 symptoms, 2,200 physical findings, 700 tests and history of over 300 generic drugs constitute the preparatory programming.

Risk factors such as personal habits, environmental exposure and travel are considered. Each item in the database was analyzed by specialists and assigned weighting points based on its importance in each disease.

The computer assigns a certain number of points to each disease whose characteristics match items in the patient's record. After every finding in the record has been compared against its disease database, it prints a list of likely diagnoses. The highest scoring disease comes out first on the list.

Testing with current cases and with cases published in the *NEJM* has produced diagnoses consistent enough with physician-made diagnoses to be impressive.

The system can accurately diagnose patients with multi-system disease.

The system may be programmed to take medical histories from patients, monitor patient progress, search files for patients with specific findings in common and to perform other medical functions.

Since June 15, the system has been available 24 hours a day for free emergency consultations. Any physician with a modem and computer terminal can sign up to use the system by phone.

Medicomp's address is 9526-A Lee Highway, Fairfax, Va. 22031. Phone (703) 591-0914. Physicians wishing to use the system must forward copies of their state registration certificate to Medicomp.

New Antitumor Compounds

Upjohn scientists report on two new compounds that successfully combat tumor cells in mice, apparently by stimulating their immune systems. The new drugs, called pyrimidinones, may develop into antineoplastic agents for use in humans. If so their advantage will accrue largely because they are not cytotoxic.

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Pets and the Elderly

Sociologists are concerned with the social factors that tend to influence the joy of life and longevity of the elderly.

Such factors as social behavior, self-appreciation of physical health and income have long been accepted as important contributors to an older person's contentment. One study in 1982 revealed that the persons in a group of 2,754 adult men and women who rated high in these three social characteristics were significantly less likely to die.

"The Latham Letter" of The Latham Foundation reports on a study that further refines the predictive elements as related to the elderly. Cathleen M. Connell, M.S. and Daniel J. Lago, Ph.D., in the Spring 1983 issue, outline the details and statistical imports discovered by a three-year social study of 184 elderly respondents residing in rural surroundings in Centre County, Pa.

Ages ranged from 54 to 90. There were 40 men and 144 women. The approximate average income was $9,000 per year. Twenty-three of the respondents were never married, 76 were married, 75 were widowed, 7 were divorced and 3 were separated.

In general, a favorable attitude toward a pet was found to be predictive of perceived happiness among pet owners.

A favorable attitude toward a pet was positively associated with perceived happiness for the unmarried respondents. In the case of married persons in the study, the effect was negative. Apparently a pet is a much more prized possession for the older person who lives alone.

The rating of pets of married couples was found to be statistically negative. Apparently, this was due to the fact that, in some instances, the pet was not equally bonded to the two human householders. Jealousy, resentment, and personal dissatisfactions as to who takes care of the animal evidently tend to lessen the advantages of pet ownership when it is enjoyed on a one-to-one basis.

Those who conduct a pet-placement service should strive to select and introduce a pet equally acceptable to both the prospective owners—and especially so if they are elderly.

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EDITORIALS

Quality of Care?

Guest Editorial

Whenever new approaches to controlling health care costs are mentioned, professionals, M.D.s, and D.O.s and others rise up indignantly and say, "Think what this will do to the quality of care!"

Somehow, this falls on deaf ears in our case. We think the greatest contributor to "quality of care" in recent years has been malpractice suits. They have also added to health care costs. "Defensive medicine" is expensive and largely unnecessary.

We see no future attrition in malpractice, but we believe "quality of care" will not suffer from decreases in physician or hospital charges. The idea that the physician will give less attention to a patient because his fee is less, is repugnant to us.

Doctors are not starving! If you think so, we suggest you look at the recent issues of *Medical Economics*.

Our tendency at all levels of endeavor today is to sit back and say, "The other fellow's getting his, why not me?" Physician and hospital charges have exceeded inflation rates or any other criteria you care to name.

Our immediate reaction is to feel sorry for hospitals as they are labor intensive and "quality of care" is going to suffer here, if anywhere. But hospitals built their problem. Expansion in the face of a declining economy, poor planning and refusal to accept the facts of life are not the consumer of health care's fault.

It never has seemed to dawn on hospital boards and administrators that an empty bed is not just a non-profit item—it's a total loss. Efforts to cover their loss have already resulted in reductions in "quality of care" to the beds with patients in them.

Now to our physician brethren: Pharmacists have suffered along with inadequacies in Medicaid and MACs, but has "quality of care" suffered? Are prescriptions filled less accurately? Of course not! Less income was part of the package.

Physicians should accept this and we believe will, if challenged by lesser fees. The Hypocratic oath makes it unthinkable to lower the "quality of care."

The facts are that the purchasers of health care are too ready to knuckle under when faced with increases in fees, which are unreasonable. The negotiations are between the insurance companies and their customers; they should be between insurance companies and providers. They certainly are in pharmacy!

Why not in medicine and hospitals? We submit they hold these providers in awe, just as pharmacists put physicians on pedestals.

Quality of care is not a valid argument in most cases. If quality of care is only available at a price, some folks need to rearrange their priorities.—**Reprinted by permission from "Action in Pharmacy" newsletter, May 1983.**

On Whose Back?

Guest Editorial

The Pirates of the Potomac (Congress) are again facing their perennial "battle of the budget." As usual, they are talking of increasing taxes to help in the control of the federal deficit. As usual, they fail to see who the "bad guys" and the "good guys" really are.

The good guys are easily recognized if one looks for them; the white hats they wear are their IRS forms 1040. They are the taxpayers. They are a silent unorganized bloc whose voices and interests go unheeded by the Pirates, as they struggle to carry the burdens heaped on their backs by the ex-ward healers who have been elected to their piracy positions in the Congress.

The main reasons for the uncontrolled federal deficits lie in the so-called social programs, and in the pork barrel programs. Are the pirates so stupid that they fail to recognize the "bad guys"?

The supporters of the social programs have organized vocal choruses who shout that the budget must not be "balanced on the backs of the poor!" Where can it be carried or balanced? There is only one place it can be "balanced." That is on the backs of taxpayers. The rich taxpayers can carry only a tiny part of the load; the middle-class taxpayers are more numerous, but their gross capability is limited; so the biggest part of the burden must fall on the little taxpayer—there is nowhere else to go.

The thoughtless cry out to put the burden on business. Business has no money machines, so the taxes they pay have to go through business and be added onto the prices we all pay for everything we use. Since the low-income folks outnumber the high-income people, the bulk of the taxes come on down to the low-income taxpayers.

The end result of all the "income redistribution" social programs is the oppressive taxation and inflation that the Pirates have given us. If you think that inflation is under control, just wait a year or two until the $200 billion plus deficitis trickle down through the verbal garbage of the economic idiots of Washington. The seeds of great inflation have been planted, and are being fertilized by the Pirates and the big-spending supporters. The crop of inflation to be harvested will mature, and will further crush the productive taxpayers and savers of the nation.—**L. A. Arata, M.D., Shelbyville, Ind.**

Generic Drug Ruling

The U.S. Supreme Court finds that a generic drug which does not carry exactly the same excipients or solvents is, in fact, a new drug and cannot be marketed without FDA approval.

Claims have been made that, if the active principle of a drug product is chemically equal to that of the brand-name antecedent, no further approval is needed. This is not a safe assumption. Tablets have been known to be insoluble in the G.I. tract and hence did not release any of the effective principle.

In another incident, Digoxin tablets, generically produced, delivered only 1/7 of the blood level that could be obtained from Lanoxin tablets of the same dosage size. Both products contained the proper amount of the active drug.

Bioavailability is the essential characteristic of any drug product.

Everyone recognizes the importance of controlling expenditures, especially in medical care. However, a drug product that does not deliver the proper and anticipated dosage, no matter how low in price the drug may be, does not save money, it wastes it. And, it threatens lives in the long run.

The Supreme Court, in its unanimous decision, has contributed a tremendous safety factor to the public at large and to the practice of medicine.

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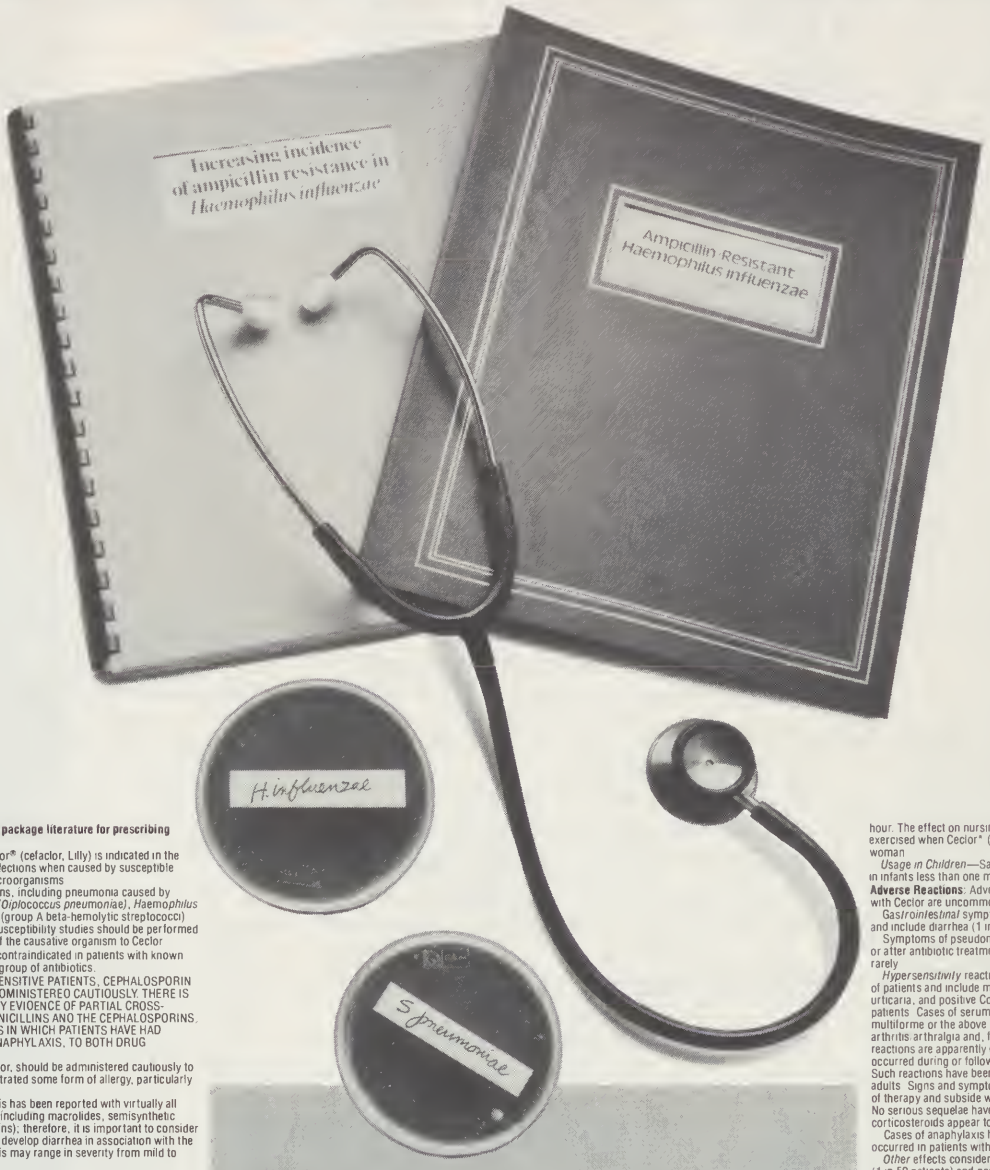
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An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

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Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions*—If an allergic reaction to Ceclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers—Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor® (cefaclor, Lilly) is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations of SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[0617B2R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[4]

Note. Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

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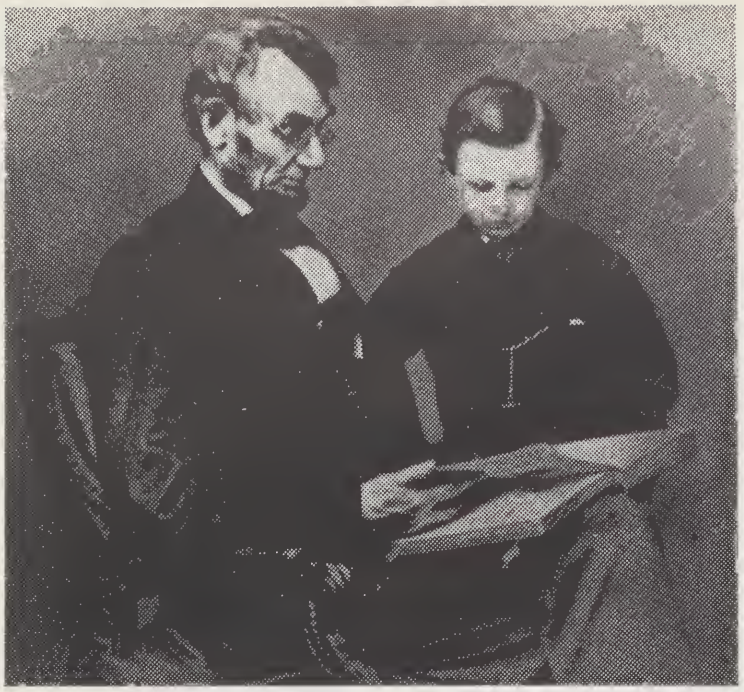
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AUXILIARY REPORT

Hulda Classen (Mrs. Peter)
President, ISMA Auxiliary

It is summer vacation time, but interspersed with vacation activities are planning and working sessions of the ISMA-A committees. The Health Projects Committee met recently with a representative from the American Cancer Society. We are enthusiastic about our statewide Health Education Project. Listen to Lois Gumbert, Allen County community health education chairman, describe their experiences:

"I became interested in the medical auxiliary starting a program to bring health education to the schools in the primary grades after attending a Northern Area workshop last fall. At the workshop, state community health education chairman Donna Serna showed a film available from the American Cancer Society that is geared toward school-age children. I was impressed with the film because it stressed not only promoting good physicial health but also mental health, especially self-esteem.

"After contacting our local American Cancer Society, I found out that these films were available and already in most of the schools but they weren't being used. I borrowed the films and accompanying kits for kindergarten through third grade, reviewed them at home and became familiar with the material. I proposed a pilot program to our board of directors and they voted to pursue the project. At the next general membership meeting I explained the program, showed one of the filmstrips and asked for volunteers. The response was very good.

"I felt our members would be more comfortable going into the schools if we had a training session. This session was conducted by members of the American Cancer Society. Originally, my intent was to use two pilot schools, but our committee was so enthusiastic after the training session we decided to take the program to seven schools. On May 3 we met again with A.C.S. members to discuss our results. A key factor here is once an auxiliary member has been trained, she can train another member, so it will be easy to get others involved.

"The units which are included in the program are as follows:

#1. MY BODY	Kindergarten
#2. MY SELF	Grade 1
#3. MY HEALTH	Grade 2
#4. MY CHOICE	Grade 3

"The units are attractively packaged in one colorful, compact box; they have already been distributed to the elementary schools throughout the state. Each unit contains a filmstrip with its accompanying record or cassette, providing the "mini-musical" story and song. Also included are a teacher's guide with a suggested introductory lesson, group activities and playscript, music and suggestions for classroom performance, five Repro Masters and a poster for classroom display. It also includes a letter to go home to the parents explaining the presentation and signed by the county medical auxiliary.

"Next fall we will expand this program further. My thanks to Donna Serna for stimulating my interest and to the wonderful cooperation of our members."

We will have more information available at our fall workshops for the county auxilians. The Central and Southern Area Workshop will be held Tuesday, Sept. 13, at the Indiana Memorial Union, Bloomington, beginning at 9 a.m.

The Northern Area Workshop will be held Wednesday, Sept. 14, at the Patchwork Quilt Country Inn, 11748 C.R.2, Middlebury, Indiana—at exit #10 on the Indiana Toll Road.

We urge every county auxiliary president to bring her county chairmen to these workshops. We extend a warm welcome to all members-at-large and to non-member spouses of physicians to join us. Together we can make a difference.

BOOK REVIEWS

Ultrasonics as a Medical Diagnostic Tool

Noyes Data Corporation, Park Ridge, N.J. 330 pages, hardcover.

This volume is compiled from results of more than a hundred federally funded research studies on ultrasound as a diagnostic modality. It deals with the uses of sonography in the fields of cardiology, atherosclerosis, imaging of the brain, tissue scanning; and cancer diagnosis particularly in the abdomen, thorax, breast, soft tissue, bones, prostate and eye.

Although it is commonly held that noninvasive sonography is a harmless procedure, a whole chapter in this book is devoted to research on its bio-effects. So far, several studies of ultrasound effects on the developing fetus in humans have revealed no teratogenic or other abnormalities. The editors point out that more extensive studies targeted on sonography in the first trimester in humans should be made before definite conclusions are reached.

In laboratory animals extremely large ultrasound delivery *has* resulted in small litters and birth defects. Cell injury was postulated to be chiefly from thermal effects.

Several in situ studies have revealed that even in low concentrations blood platelet activity can be enhanced by sonography. Studies on laboratory animals indicate that platelet turnover is increased also by ultra-sound radiation. There was no mention of increased thrombophlebitis in humans.

Clinicians will find that this book answers most of the questions they may have about sonography as a diagnostic tool. Since they are most likely to consult the radiation department physicians before resorting to the library for such information, this book will be most useful in the Radiology Library.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine



I don't smoke.

Borderline and Acting Out Adolescents

By Gary Nielson, Ph.D. Copyright 1983, Human Sciences Press, New York. 256 pages, hardcover, $26.95.

Dr. Nielsen is in charge of the Child and Adolescent Secure Treatment Program at Oregon State Hospital. The concepts developed in this book were derived chiefly from his experience with this in hospital treatment groups. What is meant by "borderline" adolescents is not quite clear, possibly because the manifestations do not fall neatly into a common pattern. In general the young people the author is writing about are depressed and hostile, impulsive, socially adaptive; have bizarre, illogical, primitive responses in psychological tests; and responses that vacillate between superficiality and intense dependency. As with most psychologic disorders, putting a label on mental aberrations is risky business. One concludes that the author's patients have character disorders which may or may not be partially reversible and which do not usually progress to real psychoses.

The author makes the point that adolescent personality characteristics may persist long after the physical changes of puberty are complete. Probably the most significant thing he has to say is that adolescents with problems usually are the off-spring of parents who have not yet attained the mental and emotional security that are required for adequate parenting.

No one would quarrel with the author's concept that all children, and especially those entering puberty, are nearly always struggling for acceptance into the adult world. When they perceive themselves as being rejected—an unrecognized feeling that can begin in very early childhood—they begin "acting out" in ways that are very self-destructive to gain the attention of their elders and relieve their depression. This need becomes so great that many commit first, minor crimes, later more major ones, deliberately to gain access to juvenile security institutions and later jails because they need desperately to "belong" somewhere. If in this way they make contact with some counselor or other adult who shows interest in their problems they are fortunate, indeed. Unfortunately, their therapy often cannot be continued long enough to keep them from being vulnerable to the unsettling circumstances of home life. Parents who vacillate between overindulgence and harsh discipline without ever recognizing that their children need understanding and the discipline that goes with love, need counseling as much as their delinquent children.

Nielsen's book appears to be directed chiefly to mental health professionals, counselors and therapists. Although the writing is at times rather pedestrian, his approaches appear sound. The case histories presented are valuable as teaching exercises. If the book contained more of them and less theoretical presentations it might be of more value to primary physicians who, for one reason or another, are more likely to have to deal with adolescent problems than trained psychiatrists.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Nutrition and the Killer Diseases

By John Rose. Copyright 1982, Noyes Publications, Park Ridge, N.J. 185 pages, hardcover, $25.

Dr. Rose, an Englishman, is editor of this relatively small volume. About half of his collaborators are from medical centers in this country. The others are from England.

The "killer diseases" to which the title of this volume alludes include arteriosclerosis with its consequences in the heart, brain and peripheral organs; cancer; and diabetes. The authors speculate that excessive fat in the diet increases the risk of breast cancer by altering female hor-

monal balance, thus promoting growth of neoplastic tissue. The same preponderance of ingested fat may result in a bacterial flora of the gut which metabolizes fat in a way that releases precarcinogens. The ways in which a high fat, high cholesterol diet affect arteries in the metabolism of diabetic patients is better understood, but is still in some respects unclear.

Fashions in diet come and go, as in other aspects of human behavior. The present widely accepted view that high fiber, limited fat, average or slightly increased carbohydrates, low salt diets by and large are the best is buttressed by considerable reliable research data summarized in this book. The notion that many common foods contain precarcinogens which under certain circumstances are metabolized to true carcinogens with which the body's immune mechanisms cannot cope is presented in the chapter on "Nutrition and Cancer."

In subsequent chapters the roles of heavy metal trace substances and vitamins in health and disease are elaborated.

This is not the kind of volume that busy physicians are likely to read in any extensive way. However, it has the advantage of short summaries at the start of each chapter of what is to follow. Thus, it is easy to use as a reference when managing patients having clearly evident nutritional disorders.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Clinical Care of the Terminal Cancer Patient

By Barrie R. Cassileth, Ph.D. and Peter A. Cassileth, M.D. Copyright 1982, Lea & Febiger, Philadelphia. 274 pages, hardcover, $24.

This is a book for clinicians combining in a scholarly manner a discussion of the physiologic and psychological changes occurring in the end stages of the life of the cancer patient and the impact of the environment which surrounds him as he approaches death. Such topics as tumor biology, common medical complications, endorphins and the pharmacologic and physiologic implications of pain control are considered in the early chapters. The goals and reasonable expectations of palliative chemical and radiation therapy are presented, but not the details of each technique. In other chapters such topics as care by the patient's family and by those who visit the home—such as hospice—spiritual counseling, nutritional care and psycho-social problems are dealt with adequately.

For the physician charged with guiding the patient through this final phase of his life, all of the above discussions are of considerable value. Whether or not he takes the time to go through them in some detail, he should by all means read the last chapter. This consists of a Symptom Control Manual in which the physician's particular role in the patient's final illness is presented in a compact fashion.

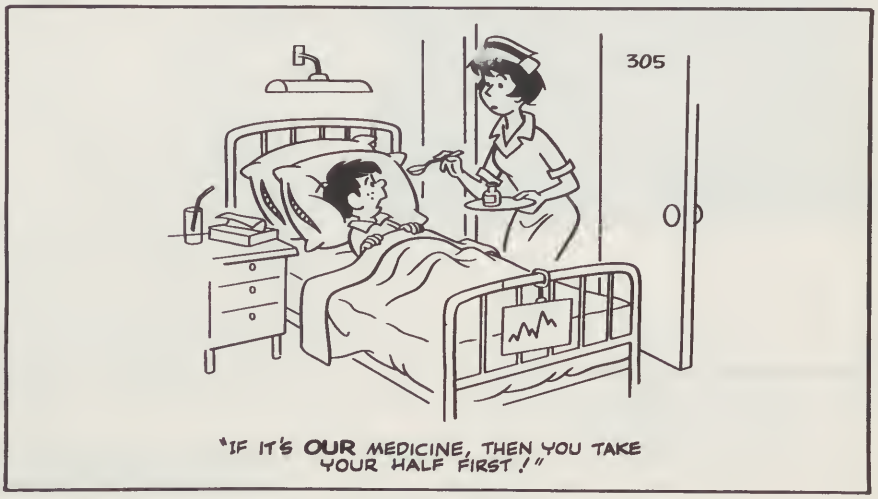
The necessity for pain control is stressed. The authors make the point that the terminal patient's pain often is not only physical but also psychologic, social, spiritual and financial. Sometimes the physical pain such as toothache, local infection, hemorrhoids, etc. which is amenable to treatment should be eliminated. Such pain is quite different from the constant boring pain due to the neoplasm itself. Examples are cancer of the pancreas and bone and cerebral metastases. When the latter kind of pain is constant the point is made that the patient will be spared much suffering if medication is given at four-hour intervals around the clock in anticipation of its onset. Following such a schedule requires smaller doses than if the pain is allowed to develop to its full intensity. The desirability of prescribing pain medications in the oral form—liquids or tablets—is emphasized. This avoids painful injections and makes administration of the drug by family members easier. Specific recommendations are given for choice of drugs and how liquid formulations are prepared. Of interest is the opinion of the authors that some drugs commonly used for pain control are either ineffective or undesirable because of side effects. These include Darvon, Talwin and Methadone.

Recommendations for the control of anorexia and nausea resulting from the neoplasm itself or chemotherapy to contain its growth are suggested. The authors feel that adrenal steroids and metoclopramide often are the drugs of choice here. All the symptoms arising in any given case cannot, of course, be anticipated. Those relating to constipation from opiate administration, deterioration of gums, decubitus and other ulcers and the like are dealt with briefly but adequately.

Sixteen authors, all from the Philadelphia area, have collaborated with the Cassileths in the preparation of this very useful volume.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Jeffrey Norton Publishers have a special audio cassette-textbook combination course designed for doctors, medical students and other medical practitioners for whom English is a second language. It is titled "Medically Speaking—English for the Medical Profession." The course consists of two audio-cassettes and a 156-page text fully illustrated in color.



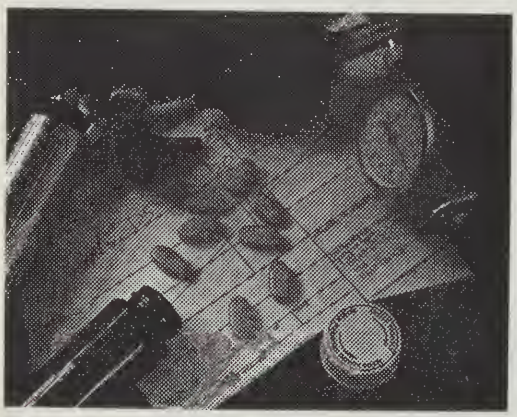
Look-Alike and Sound-Alike Drug Names

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Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	GLUTETHIMIDE	**GUANETHIDINE**
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Brand Name:	Doriden, USV	Ismelin, Ciba
Generic Name:	Glutethimide	Guanethidine
Dosage Forms:	Tablets, Capsules	Tablets
	METOPROLOL	**METAPROTERENOL**
Category:	Antihypertensive	Systemic bronchodilator
Brand Name:	Lopressor, Geigy	Alupent, Boehringer-Ingelheim Metaprel, Dorsey
Generic Name:	Metoprolol Tartrate	Metaproterenol Sulfate
Dosage Forms:	Tablets	Tablets, Syrup, Inhaler

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NEWS NOTES

Help for the Unemployed

The Indiana Society of Internal Medicine and the Indiana State AFL-CIO have originated a plan to provide medical care to Hoosiers who have lost their health insurance benefits because of temporary unemployment. More than 80 internists in 34 Indiana cities and towns have volunteered to accept as patients a total of more than 600 unemployed union members per month.

Administration of the plan will be through a system devised by Indiana AFL-CIO President Ernest Jones. Union members needing the attention of a physician will be referred to a participating internist. In most cases there will be no charge for the physician's time; however, subsequent lab tests, prescription drugs, hospitalization, etc. are not included.

Baby Care Pamphlet

Public Affairs Pamphlet No. 616 is titled "Caring for the new baby—the first 18 months." It is written by June V. Schwartz M. D., and Emma R. Botts, R.N. The 29-page pamphlet is available for 50 cents from the nonprofit Public Affairs Committee, 381 Park Avenue South, New York, N.Y. 10016. Multiple copies at discount rates.

CT Scanners in China

The People's Republic of China is buying 10 Computed Tomography (CT) whole body x-ray scanners from General Electric for a total of $6.5 million. The scanners are to be located in major medical centers, including but not limited to, Beijing, Harbin, Shenyang, Chengchow and Canton. The purchase is part of a move to improve China's health care facilities.

Medical Trade Mission

The Indiana Medical Trade Mission arrived in India early in June. Several days were spent there and subsequently in Singapore, Hong Kong, South Korea and Japan. Information on medical products was the principal subject discussed at all stops. In addition Lt. Gov. John Mutz, on his way to Singapore, was scheduled to stop in Korea to further the shipment of Indiana cattle.

Tips for the Jobless

"What to Do When You Lose Your Job" is No. 617 in the Public Affairs Pamphlet series. It is written by Grace W. Weinstein. She outlines and presents details of making use of present assets and of maintaining the financial position as soundly as possible. She also discusses in a practical way the emotional problems and how to handle them.

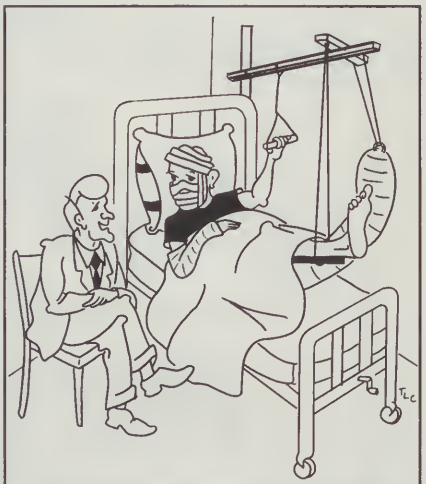
The pamphlet sells for 50 cents. Write to Public Affairs Committee, 381 Park Avenue South, New York, N.Y. 10016. A catalog listing over 160 titles is available for the asking.

AMA Jail Program

The AMA Jail Health Care Accreditation program is now managed by American Health Care Consultants, which has announced that the program, as of July 1, began addressing the same problems in prisons and juvenile facilities.

B. Jaye Anno, Ph.D., vice president of the AHCC, states, "We know of not a single instance where a jail, accredited as meeting AMA standards, has been successfully sued for inadequate health care. More than 35% of the nation's jails are under such suit or are facing compliance with Court orders."

Prisons, jails and juvenile facilities seeking accreditation information should write to Dr. Anno at 333 E. Ontario St., Chicago 60611, or phone (312) 440-1574.



Why don't you just get out of Public Relations?

Helicopter Evac Report

The advantage of helicopter transport of the injured is reported in the June 10 issue of *JAMA*. One hundred fifty helicopter-transported patients were compared in mortality to 150 similarly injured patients transported by land vehicles. The airlifted patients experienced 52% less mortality.

Research Prize Offered

The Janssen Research Foundation in Beerse, Belgium has announced a biennial award of the "Denis Thienpont" prize for original research in parasitology or mycology. The $25,000 prize honors Dr. Denis Thienpont, world famous parasitologist.

The first presentation will take place in 1985 for fundamental or clinical research submitted by Dec. 31, 1984. Applications and additional information may be obtained from Academics Royale de Medicine de Belgique, 1, rue Decale, 1000 Brussels.

AMA Writes for Newsweek

The AMA will write the text of *Newsweek*'s "Personal Health Care" special advertising supplement appearing this fall. It will be the first time AMA writers have contributed to a major magazine.

Advice will be offered on several topics including the values of different physical exercises, suggestions for healthful eating, ways to prevent illness and to cope with stress, and how to decide when to see a doctor. The supplement will appear in the Nov. 7 issue which appears on sale Oct. 31.

Medical Practice Guide

"Building and Maintaining Your Practice" is the title of a new publication by the American Society of Internal Medicine. It was published as an insert in the April 1983 issue of *The Internist*. It is written especially for internists, but because the principles of successful medical practice are general in nature, the guide is being made available to all physicians. Send $2 to ASIM, 1101 Vermont Ave., N.W., Suite 500, Washington, D.C. 20005.

NEWS NOTES

Here and There. . .

. . . **Dr. William M. Wahle** of Indianapolis has been elected president of the Central Indiana Regional Blood Center board of directors.

. . . **Dr. John T. Munshower** of Indianapolis discussed "Parkinson Maintenance" during a June meeting of the Parkinson Awareness Association.

. . . **Dr. Robert P. Inlow** of Shelbyville has been re-elected to a three-year term on the board of directors of the Indiana Chapter, American College of Surgeons.

. . . **Dr. Howard C. Deitsch** of Richmond has been named a delegate to the Indiana Division, American Cancer Society.

. . . **Dr. Edward L. Langston** of Flora, immediate past president of the Indiana Academy of Family Physicians, discussed "Therapeutic Equivalency: The Physician's Viewpoint" during the annual National Pharmacy Conference, held in June at Rutger's University.

. . . **Dr. Max S. Norris** of Indianapolis received the B. Lynn Adams Award during the Indiana Rose Festival for his contributions to community beautification projects.

. . . **Drs. John A. Cavins, Myron H. Nourse, Harry M. Sanders, Richard J. Shelley** and **J. Bradley Thurston,** all of Indianapolis, have been elected to the board of directors of the Marion County Cancer Society and the Indiana Cancer Society.

. . . **Dr. Leo M. Bonaventura** of Indianapolis discussed the diagnosis and treatment of infertility during a June meeting of the South Bend Area Resolve.

. . . **Dr. James C. Reed,** an Elkhart dermatologist, discussed genital herpes during a June meeting of the Northern Indiana HELP Group.

. . . **Dr. Robyn K. Goshorn** of Franklin discussed the detection and treatment of diabetes during a June meeting of the Alpha Chi chapter, Epsilon Sigma Alpha sorority.

. . . **Dr. Frederick B. Stehman,** associate professor of Ob-Gyn at the I.U. School of Medicine, discussed PAC chemotherapy at the May meeting in San Diego of the American Society of Clinical Oncology; he also presented two cancer-related abstracts in Colorado Springs at a meeting of the Western Association of Gynecologic Oncologists.

. . . **Dr. Bernard Lourie** of Evansville has been appointed by Gov. Orr to the six-member Indiana Air Pollution Control Board; he has been active in environmental studies of synthetic fuels.

. . . **Dr. Louis F. Bradley** has announced the opening of his office for internal medicine at 100 W. Horton, Suite 100 (Wells Community Hospital), Bluffton 46714.

. . . **Dr. Robert W. Godley** of Fort Wayne has been elected to fellowship in the American College of Cardiology.

. . . **Dr. Duane C. Flannagan,** a Jasper ophthalmologist, discussed diseases of the eye at a recent meeting in Jasper of the Sunset Extension Homemakers Club.

. . . **Dr. David A. Josephson** of Carmel discussed myasthenia gravis during a June meeting of the Indianapolis Chapter, Myasthenia Gravis Foundation.

. . . **Dr. Polly G. Nicely** of Indianapolis has been elected chairperson of the Indiana Governor's Council for Physical Fitness and Sports Medicine; **Dr. Thomas A. Brady** of Indianapolis was elected vice-chairperson.

. . . **Dr. John T. Nonweiler** of Brazil began a three-year mission to Bangladesh in June with his family.

. . . **Dr. Daniel D. Thomas,** a Gary proctologist, has been named coroner of Lake County.

. . . **Dr. Harold D. Caylor,** Caylor-Nickel Medical Center, Bluffton, received an honorary degree from Tri-State University at the school's spring commencement, for which he presented the graduation address.

. . . **Dr. George R. Weir,** a Brownstown pathologist, discussed "Pathology of the Cancer Cell" during a May meeting in Seymour of Families Facing Cancer.

. . . **Dr. Michael A. Hinshaw** of Richmond has been elected as an alumni representative to the Earlham College board of trustees.

. . . **Dr. Donald S. Chamberlain,** a Mishawaka radiologist who serves as an ISMA trustee, has been elected to the board of directors, National Bank and Trust Co.

. . . **Dr. Polly G. Nicely** of Indianapolis explained how "Daily Decisions Affect Your Health" during the annual conference of the Federation of Older Hoosiers, held in May in Indianapolis.

. . . **Dr. James E. Hull** of Lafayette has been elected an affiliate of the American Society of Colon and Rectal Surgeons.

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. . . **Dr. Robert W. Mouser** of Indianapolis is the new president of the Indiana Academy of Family Physicians, succeeding **Dr. Edward L. Langston** of Flora.

. . . **Dr. Walter J. Daly**, an Indianapolis internist, has succeeded **Dr. Steven C. Beering** as dean of the Indiana University School of Medicine; Dr. Daly is the James O. Ritchey professor of medicine and has been chairman of the Department of Medicine since 1970.

. . . **Dr. Paul C. Powers** of Muncie addressed the Renewed Hearts Club at its June meeting in Muncie.

. . . **Dr. Thomas E. Hayhurst** of Fort Wayne was guest speaker at the June meeting of the Alzheimer's Disease Family Support Group, Fort Wayne.

. . . **Dr. Joseph P. Ornelas** of Merrillville discussed food allergies at an asthma awareness meeting in June sponsored by the American Lung Association of Northwest Indiana.

. . . **Dr. John W. Schurz** of South Bend has been certified by the American Board of Surgery.

. . . **Dr. Richard S. Ackart** of Anderson has been elected to fellowship in the American College of Physicians.

. . . **Dr. R. Joe Noble** of Indianapolis is a guest faculty member of an American College of Cardiology panel that will conduct a board review program in Atlanta, Oct. 10-13.

AIDS Reference List

An AIDS literature reference list may be obtained free of charge by writing to AIDS Project/Los Angeles, 937 N. Cole Ave., Suite 3, Los Angeles 90038, or by calling (213) 871-1284. The list is being updated constantly.

Any physician who obtains the current list should notify the AIDS Project of any article that is not included. The organization is non-profit and would appreciate any contributions.

James A. Harshman Award

Two pathologists, Dr. Lall G. Montgomery of Muncie and Dr. Clyde G. Culbertson of Nashville, have received the first James A. Harshman Award for "outstanding service and contributions to pathology in Indiana."

The new award, honoring the memory of Dr. Harshman, a pathologist and past president of ISMA, was presented in May during the annual seminar banquet of the Indiana Association of Pathologists. Dr. Garry L. Bolinger, IAP secretary, said the award will be presented annually.

USP Fellowships Awarded

Wendy A. Preston, student at Purdue University, has been awarded one of the six fellowships created by the United States Pharmacopeial Convention for doctoral candidates in areas related to drug standardization. Wendy will investigate the stability of hydroxybenzylalcohol drugs (e.g., epinephrine) in the presence of bisulfite ion and soluble aluminum and will investigate the extent to which rubber closures can serve as a source of soluble aluminum.

This Publication is available in Microform.



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NEWS NOTES

Corcoran Honored

Dr. Patrick J. V. Corcoran, first director of the Evansville Center for Medical Education, has been named recipient of *The Evansville Press* Distinguished Community Service Award for 1983. He is chairman of the AMA Council for Medical Education and chairman of the national Accreditation Council on Continuing Medical Education.



Corcoran



Popplewell

APL Board Chairman

Dr. Arvine G. Popplewell of Indianapolis, past president of ISMA, has been elected chairman of the board, American Physicians Life Insurance Company (APL). He was director, chairman and president of Indiana Physicians Life Insurance Company before it was merged with PICO Life Insurance Company to form APL in March of this year.

Drugs and Insomnia

A National Institutes of Health consensus development conference on "Drugs and Insomnia" will be held Nov. 15-17 at the Masur Auditorium, NIH, 9000 Rockville Pike, Bethesda, Md. 20205. Physicians are invited.

To register or to obtain more information, contact Ms. Michele Dillon, Suite 401, 2115 E. Jefferson St., Rockville, Md. 20852—(301) 468-6555.

Medicine Consumer Guide

The Council on Family Health has published "Ten Guides to Proper Medicine Use." The brochure, on poster-weight paper, instructs consumers on the steps to follow when buying and taking medicines. For a free copy, write to the Council at 420 Lexington Ave., New York, N.Y. 10017.

ISMA Convention

ISMA reminds members that the 1983 annual convention will be held Oct. 14-17 at the Executive Inn in Evansville.

For an idea of what to expect this year, see the convention notice on page 541 of this issue.

Thoughts to Ponder

- "I don't make jokes—I just watch the government and report the facts."—Will Rogers.

- "If you want to succeed, you should strike out on new paths rather than travel the worn path of accepted success."—John D. Rockefeller.

- "More often than not, politicians know what they are doing, even if the people who elect them don't."—J. Kesner Kahn.

No Cancer Epidemic

The scientific evidence does not support the popular conception that the United States is suffering from an "epidemic" of cancer, according to a report by the American Council on Science and Health (ACSH). The statistics indicate that the rates of the common forms of cancer, with one major exception, have decreased or remained roughly constant for the past 50 years. The exception is lung cancer, the largest preventable cause of death in the U.S.

The ACSH also reports that comparison with 42 other countries shows the U.S. in the median—17th place for men, 19th for women.

A single complimentary copy of the report, "Cancer in the U.S.: Is There an Epidemic?" can be obtained by sending a self-addressed, stamped (37¢ postage), business-size (#10) envelope to ACSH, 47 Maple St., Summit, N.J. 07901.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Abell, William A., Anderson
Addis, Howard M., Mishawaka
Aeschliman, William J., Fort Wayne
Bao, Danny C., Carmel
Bolander, James E., Fort Wayne
Brennan, Thomas F., Lafayette
Chu, Johnson C., Logansport
Emerson, Quentin B., Fort Branch
Ferrara, Thomas A., Indianapolis
Gammell, Lindley L., Columbus
Garrity, Joseph G., Mount Vernon
Gries, Richard L., Haubstadt
House, Jerry L., Indianapolis
Kolettis, John G., Merrillville
Lee, Shuishih S., Fort Wayne
Lucas, John T., Fort Wayne
Martinez, Luis D., Munster
Maus, Ronald T., Kokomo
Montecillo, Antolin M., Clinton
Nolan, Gerald R., Fort Wayne
Pascuzzi, Chris A., South Bend
Pattison, John D., Marion
Penn, Robert A., East Gary
Purcell, Richard J., Griffith
Reynolds, Richard J., Terre Haute
Roof, Roger S., Greencastle
Salb, John P., Jasper
Scofield, John B., Indianapolis
Spellmeyer, John C., Richmond
Westrom, Joseph V., Kokomo
Young, Joseph W., Franklin

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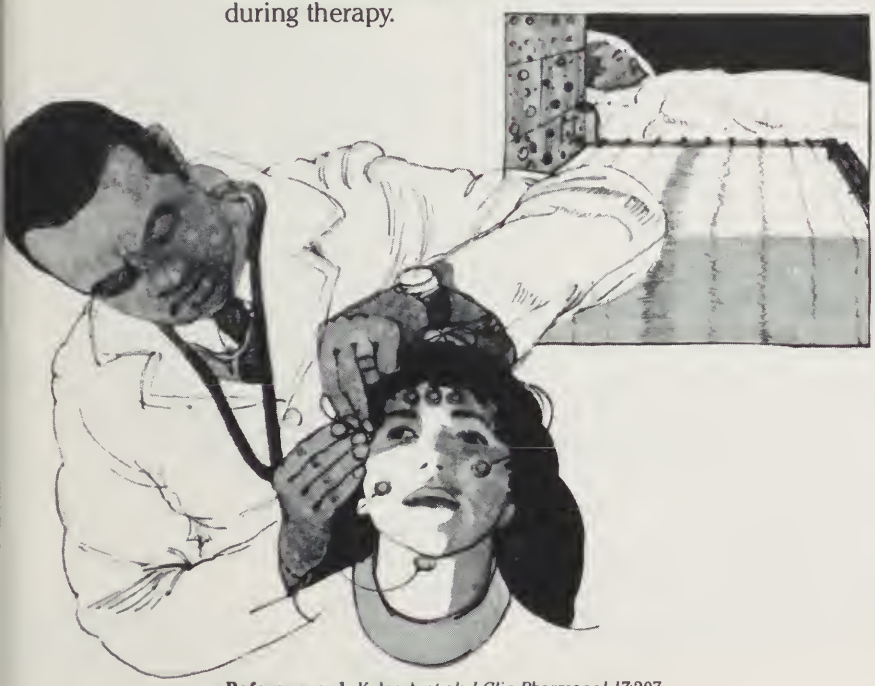
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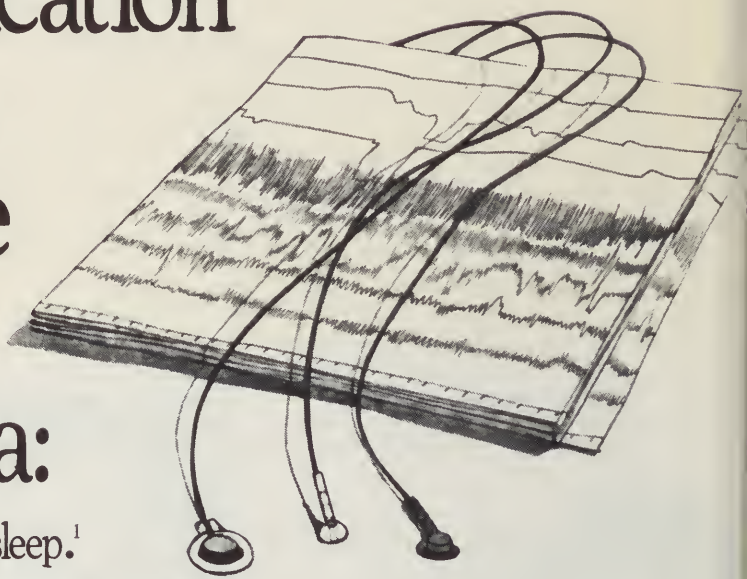
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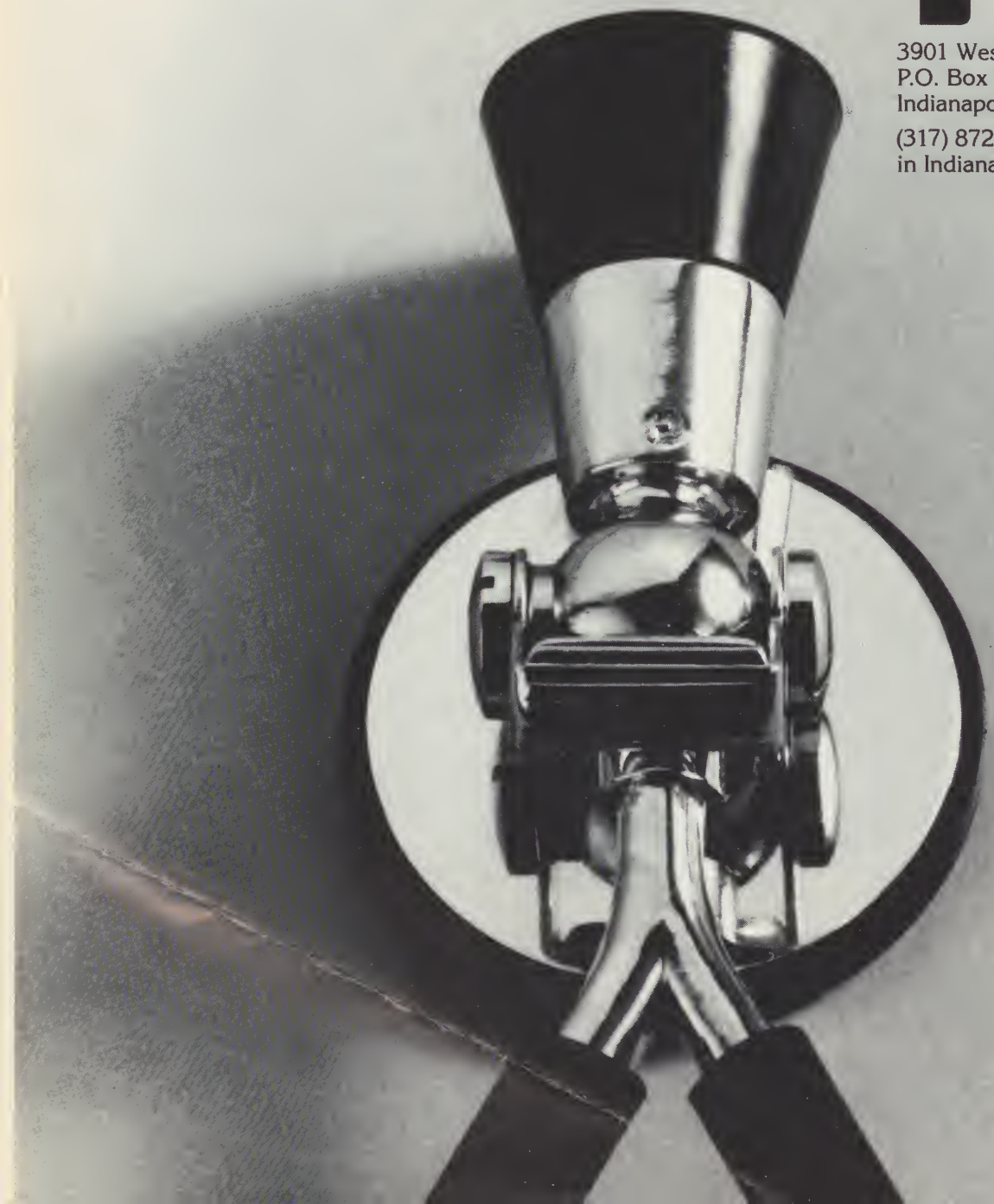
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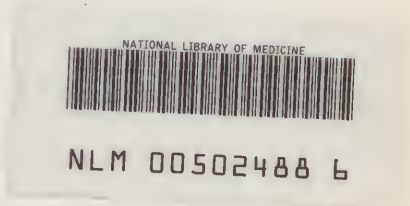
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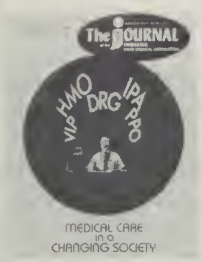
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Dr. John A. Knote, ISMA president, ponders the "alphabet soup" of alternative forms of providing and paying for medical care that are being foisted on the medical profession. The pre-convention section begins on page 611. (THE JOURNAL will publish this year's resolutions next month.)

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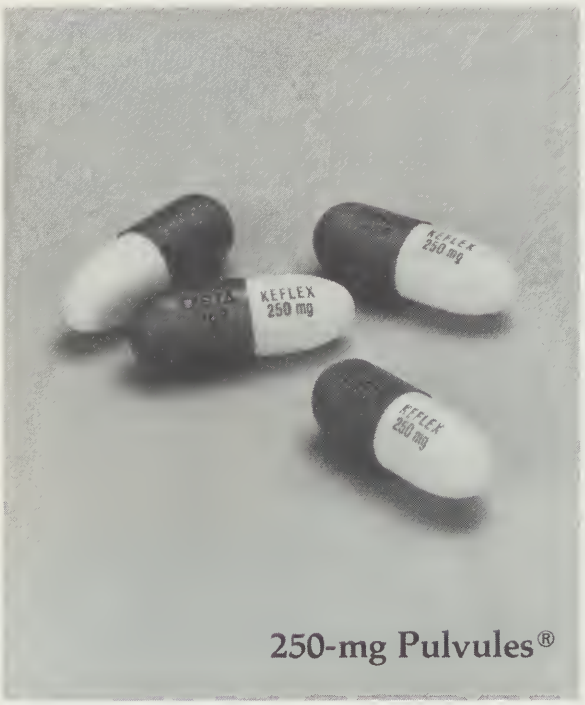
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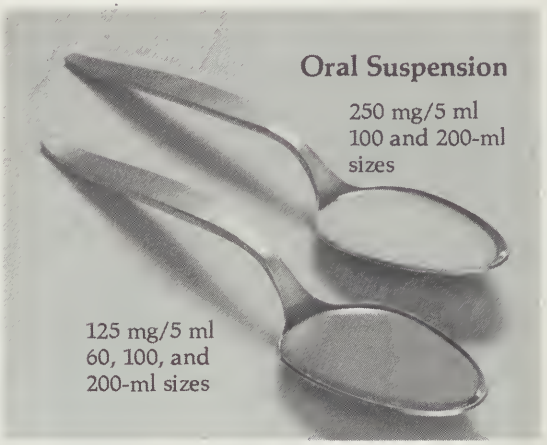
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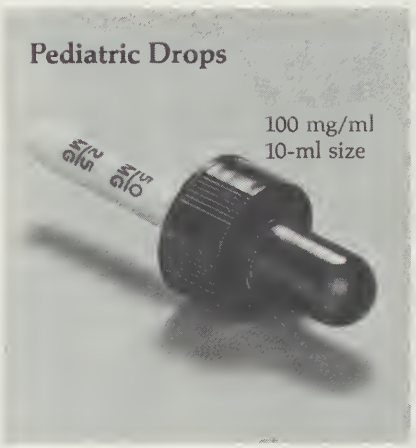
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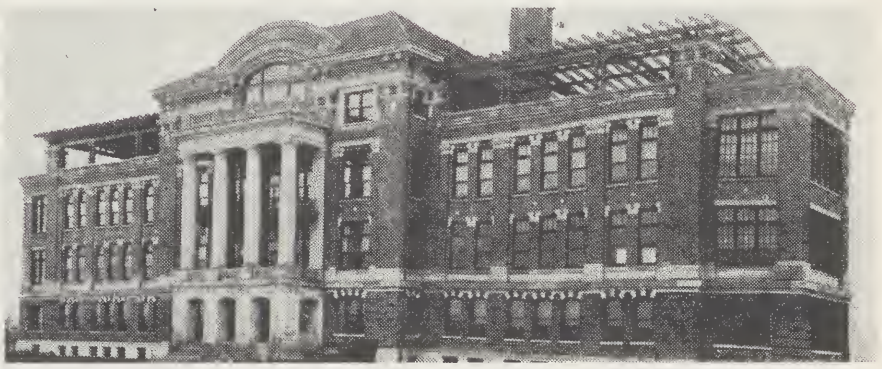
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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis



YOU WILL PROBABLY recognize this month's photograph as the Robert Long Hospital on the I. U. Medical Center Campus in Indianapolis. At this late date you may be aware that the hospital resulted from a $200,000 gift from Robert W. Long (this at a time when gasoline cost 10 cents a gallon). But you are less likely to know of the furor evoked when it was announced (Nov. 4, 1911) that the hospital was going to be built, not where it now stands, but rather in Military Park.

The 1911 General Assembly, which had passed the legislation enabling the acceptance of Dr. Long's gift, had also designated Military Park, which is a state-owned property (situated west of the State Capitol Building), as the site for the hospital's construction.

The Indianapolis Star, on the following day, editorialized against this site, stating that the Military Park was the city's most useful and necessary park, that it was essential as the playground for hundreds of children, and essential also for providing fresh air for downtown Indianapolis. Another editorial pointed out the reasons why the location was poor from the hospital's perspective — there was too much smoke and noise from switch engines and factories nearby, and the foul odors emanating from the pork houses to the south were terrible to endure on occasion.

Dr. John Barnhill responded to all of this by stating that the land belonged to the people of all 92 counties, and that it should be used in a manner to benefit all its owners, rather than only the few who happen to live in the immediate vicinity.

The Star made no specific rejoiner to Dr. Barnhill. It did, however, make a point of blaming the governor and the General Assembly for shortsightedness in failing to provide a suitable location for the hospital. *The Star* considered the situation an emergency problem, and asked the question (since no one had yet offered a solution), "Who will lead?"

Military Park had been the site for the annual Indiana State Fair until 1859, when it became a military camp, being designated as Camp Sullivan with the onset of the Civil War. It later became a city park, with a decorative fountain and flowers, and cannon and stacks of cannon balls to remind the visitors of the park's heritage.

Many Civil War veterans and organizations took up *The Star*'s banner. Not only the G.A.R., the Anthony Wayne Chapter of the D.A.R., among others throughout the state petitioned the Indiana University Board of Trustees, the city of Indianapolis, and the state of Indiana to spare Military Park.

Mayor Shank was very sympathetic to this position. He appointed a committee, which in due time considered five alternate locations, the first of which was located just west of City Hospital (now Wishard). The Board of Trustees (who had the final authority) rejected this site, and announced that if a satisfactory location was not obtained by Jan. 1, 1912, Long Hospital would be built in Military Park.

Meanwhile, the protests continued. The children who used the park were organized to form a mass demonstration, which received due publicity and sympathy.

In desperation the mayor formed a second advisory committee, including among others Mr. Felix McWhirter, president of the Peoples State Bank. He, together with Dr. John Kitchen and others, found merit in land located south of City Hospital along West Michigan Street. This site was studied by the I. U. trustees, and found to be acceptable. The mayor then proposed a $40,000 bond issue to pay for the 16 acres of land. But this didn't solve the problem.

The City Council ignored the mayor's proposal. Some members questioned the legality of providing a gift of this nature to the state. Of greater importance was the attitude of the city comptroller, who stated that the city was broke, and under no circumstances could support another bond issue.

On Feb. 8, 1912 the impasse appeared to be broken by Governor Marshall, who stated that the mayor's committee should contract immediately for the site at the stipulated price, take possession of the land, and start construction. The governor added that he would ask the 1913 Legislature to appropriate the money. This proposal sounded like that of the mayor, but at a higher level.

Finally, on Feb. 10, 1912, on page 1, a headline announced that "BOARD ACQUIRES HOSPITAL TRACT OUTSIDE PARK." The article goes on to say that the site had already been purchased with funds advanced by a banker, who is a warm friend to the State University. The name of the banker (Felix McWhirter) is not given.

It is obvious, at this very late date, who responded to the query of *The Star* editorial: "WHO WILL LEAD?"

(Military Park, incidentally, is now included within the new White River State Park).

Meeting Scheduled

A meeting of the ISMA Medical History Committee will be conducted at I p.m., Sunday, Oct. 16, at the Executive Inn, Evansville, during the Annual Convention. Interested physicians are invited to attend.

WHAT'S NEW?

Implant Technologies has developed a new tracheostomy tube which allows ventilator-dependent patients to clearly communicate orally. COMMUNItrach ™1 tracheostomy tube's design enables patients to communicate with near normal laryngeal speech at the same time it is maintaining an airway. The air for speaking enters a channel between the double walls of the trach. It exits through vents in the outer wall and is directed upward toward the vocal cords. The outer wall is sealed in the trachea with a high volume, low pressure cuff.

Williams & Wilkins is launching a new journal, *Geriatrics Survey*, an abstract journal which will appear bi-monthly. Each issue will contain about 25 two-three page condensations of authoritative articles selected from over 200 journals. Worldwide coverage includes England and France, both leaders in geriatric care. The July 1983 issue was Vol. 1, No.1.

DataChem of Carmel announces APSARA, the first medical information system with a fully integrated clinical analyzer. Modules include billing and insurance, patient profiles, scheduling, query and financial reporting, and analyzer reports.

Fisons Corporation is introducing Nasalcrom™ (cromolyn sodium, USP) Nasal Solution. It is a new prescription drug for first line treatment of allergic rhinitis. Nasalcrom is a 4% solution packaged in a metered dose nasal spray. Each refillable pack contains 13ml, enough to last approximately two weeks with average doses.

Amko has an especially designed angled atraumatic cervical tenaculum for grasping and stabilizing the cervix without perforation of the tissue. The instrument is curved to provide an unobstructed view of the cervical os.

The 3M Company has a disposable skin stapler which furnishes precise control in placement and is easy to use. It is lightweight and easy to grip in palm up, down or sideways position. The stapler is packaged in ready-to-use sterile containers.

"Medical Documentation Update" is a newsletter published by the Institute for Medical Record Economics, a non-profit organization devoted to information on legal issues in regard to medical information, medical records, x-ray films and reports. Vol. 1, No. 1 of the newsletter just appeared. It may be obtained by subscription at the rate of $125 per year for 10 issues. The address is 121 Mount Vernon St., Boston 02108.

Japanese Chinon cameras are represented now in the U.S. by CHINON U.S.A., an exclusive importer and distributor. They announce a unique accessory Data Back for their Series "4" and "5" 35mm SLR Cameras. Called the Chinon Info Back II, it allows the photographer to imprint up to 30 characters of information directly on the negative or slide. Since the information is added before the film is removed from the camera, it is almost impossible to lose or confuse identifying data.

Master Medical Corporation has the Improved IV Master Flow, which is a complete intravenous administration set. It is a simple device, easy to operate, and maintains a dependable, steady flow rate. Contains no complex electronic components or battery packs.

Brentwood Instruments is introducing a sophisticated computerized ECG cart, the FCP-200. After the leads are attached the START button is pushed. Each of 12 lead combinations are sampled in turn. A complete report is printed out on a file-sized sheet. The report includes representative wave-forms, a 15-second rhythm trace, patient data and test instrumentation. All these data appear on a single sheet.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Syntex announces that its diagnostic subsidary, Syva, has FDA clearance to market a diagnostic test for herpes simplex viruses (HSV). The new MicroTrak™ test identifies herpes in culture and simultaneously types the virus as either herpes 1 or herpes 2.

NSG Precision Cells, Inc. has a new Serum Protein Refractometer, Type Nt, for measuring protein concentration in serum or plasma. Only one or two drops of sample are sufficient. The device is equipped with a thermometer and a temperature compensation control. It is lightweight (510 grams) and features water-tight construction.

Zeiss offers a new fiberoptic headlight with a UL-listed twin-beam light source that directs bright, even illumination exactly where needed. Headband-mounted, it can be used either alone or in tandem with Zeiss prism loupes. The 9-ft. fiberoptic cable is both flexible and durable.

Detecto Scale Company announces a new electronic Pediatric Scale, Model 4830 "Baby Scale". It has a new solid-state electronic weight sensor accurate to 1/100th pound. It has a conversion switch and reads in either pounds or kilograms.

Abbott Laboratories announces introduction of Abbott AFP-EIA, the first alpha-fetoprotein to receive FDA approval. It will be used to aid the management of patients with nonseminomatous testicular cancer.

The 3M Company has developed a kit that combines a staple remover with tape skin closures. The remover will gently remove all brands of skin staples and after removal will apply tape skin closures for continued wound support.

MED-FOAM, manufacturer of medical foam convoluted pads for decubitus control, also manufactures and stocks over 100 different types of patient positioners for use in the O.R., x-ray and clinics. These products include various shaped pads and wedges; head, leg and body positioners.

Could you end up like the physician with no malpractice insurance who was hit with an $11,000,000 award?

In a recent wrongful death case, a doctor and his professional association were held solely liable for damages of more than $11.3 million. Reportedly, he carried no professional liability insurance.

Of course, as an Indiana physician you're protected from such catastrophic losses by a "cap" on awards and the Patient Compensation Fund. **But they don't protect you in every situation**.

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FUTURE FILE

Fort Wayne Seminar

A day-long seminar Sept. 29 will address "Infectious Diseases and Hospital Infection Control: Current Problems." The seminar, to be held in Fort Wayne, is sponsored by Parkview Memorial Hospital and the Fort Wayne Medical Education Program.

AMA Category 1 and AAFP accreditation (5.5 hours each) is pending.

Contact Office of Infection Control, Parkview Memorial Hospital, 2200 Randallia Drive, Fort Wayne 46805—(219) 484-6636, Ext. 2233.

Meeting in Italy

An International Symposium on Biochemistry of Spinal Cord Injury will be held in Venice, Italy, Nov. 14. It is sponsored by The Italian Society of Neurosurgery, which issues an invitation to American physicians. Official foreign guest speakers are from Yale University, Japan and Ohio State University.

Correspondent is Maria Grazia Tommaseo, Venezia Congressi, 3559 San Marco, 30124 Venezia. Phone (041) 28400.

Occupational Medicine

The Fall Scientific Seminar of the Central States Occupational Medical Association will be conducted Sept. 23 and 24 at the Hyatt Regency Hotel, Indianapolis.

The program will deal especially with disorders of the upper extremity such as dermatitis, epicondylitis, rotator-cuff disorder and carpal tunnel syndrome.

For details, contact Rita Packer, Executive Secretary, CSOMA, 119 Shabbona Drive, Park Forest, Ill. 60466—(312) 747-8124.

Indiana ACP Meeting

The American College of Physicians, Indiana Chapter, will conduct its regional CME meeting Oct. 28 and 29 at the Holiday Inn-North, Indianapolis. Nonmembers may attend—the registration fee is $10.

For details or a copy of the program write to Walter J. Daly, M.D., Emerson Hall, Room 317, 545 Barnhill Drive, Indianapolis 46223.

Indianapolis CME Courses

Methodist Hospital, Indianapolis, announces the following CME courses:

Oct. 7-8: Neurological Critical Care—for neurologists, neurosurgeons and nurses.

Nov. 2: To Clot or Not to Clot—a consideration of anti-coagulation for family practitioners and internists.

Nov. 2: Office Gynecologic Urology—at the Sheraton Meridian Hotel, Indianapolis, for Ob/Gyn physicians of Indiana, Ohio, Illinois and Kentucky.

Nov. 4-7: Advanced Trauma Life Support—for surgeons, emergency practitioners and family practitioners.

Nov. 11: Diabetes Update 1983—for internists, family practitioners and nurses.

Nov. 30: Rationing of Health Care: Is It Ethical?—co-sponsored by St. Vincent Health Care Center; Holiday Inn North, Indianapolis; for physicians and nurses.

Conference in Malta

"Advances in International Medicine" is the theme of a major medical conference sponsored by the Interamerican College of Physicians and Surgeons in Malta, Oct. 22.

Copy of the program and other details may be obtained by writing to the College at Room 607, Lincoln Building, New York, N.Y. 10017—(212) 697-0830.

Neurology Seminar

"Neurology for the Non-Neurologist" will be the subject of a three-day seminar Dec. 7-9 at the Westin Hotel in Chicago. The course is accredited for 20 hours of Category 1 credit and 20 hours of AAFP credit.

Contact University Office of Continuing Education, Rush-Presbyterian-St. Luke's Medical Center, 600 S. Paulina, Chicago 60612—(312) 942-7095.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Pregnancy Course

"Medical Complications of Pregnancy" will be the subject of a two-day graduate course Nov. 11 and 12 at the Palmer House, Chicago.

The sponsor is the Mount Sinai Hospital Medical Center of Chicago. Fourteen hours of Category 1 CME credit is available. Costs, including breakfast, luncheons, and materials will be $195 for physicians and $125 for house officers and nurses.

The correspondent is Glory Ervin, (312) 542-2005, or in care of the hospital at 1500 S. Fairfield Ave., Chicago 60608.

CT Scanning

A seminar dealing with the clinical significance of CT scanning in pediatrics will be held Sept. 24 in Chicago. The fee is $50. Six hours of Category 1 credit can be obtained.

Write or phone Medcomm Associates, P.O. Box 27331, Milwaukee, Wisc. 43227—(414) 964-5589.

Primary Care Update

The Interstate Postgraduate Medical Association meets from Oct. 31 to Nov. 3 at the Diplomat Resort, Hollywood, Florida. Emphasis will be on the problems met by the primary care physician in cardiology, geriatrics, pulmonology, gastroenterology, endocrinology and rheumatology.

The Assembly is eligible for 24 hours of Category 1 and four hours of Category 5 credit for the AMA Physicians Recognition Award.

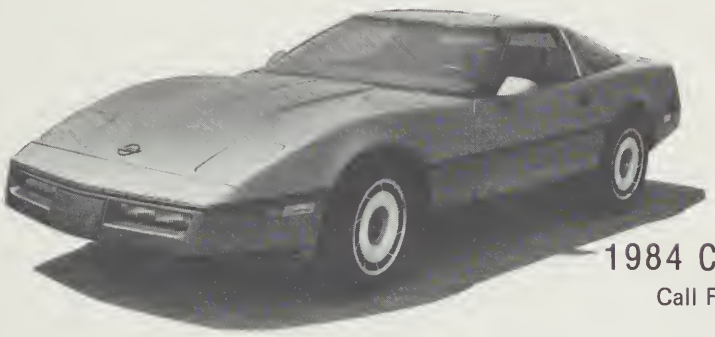
For copy of program and registration materials write to IPMANA, P.O. Box 1109, Madison, Wisc. 53701.

Biofeedback Meeting

Oct. 1 is the deadline for submitting papers for the 15th annual meeting of the Biofeedback Society of America, to be held at the Regent Hotel, Albuquerque, N.M., March 23-28, 1984. Workshops will be conducted during each day of the program.

Contact the Society at 4301 Owens St., Wheat Ridge, Colo. 80033—(303) 422-8436.

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1330 W. Michigan St.
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

During production, processing, transportation, preparation, storage, or service, any food or beverage may be contaminated with toxic substances or with pathogenic bacteria, viruses, and parasites. If a contaminated product is eaten and it contains sufficient quantities of poisonous substances or pathogenic microorganisms, individuals may contract a food-borne illness. The program activities of the Division of Retail and Manufactured Foods, Indiana State Board of Health, are designed to reduce the possibilities of food-borne disease outbreaks.

In order for State Board of Health personnel to provide improved service, the state is divided into 10 geographical areas, with one staff member assigned to each area. Staff members assist local health departments in the areas to help assure that effective food training and inspection programs are carried out.

During 1982, 1,363 inspections of retail food establishment operations were conducted with local health department personnel. Of these, 798 were conducted as training inspections for local food sanitarians. The remaining 565 were conducted during 11 evaluations which ISBH staff conducted of food sanitation program operations. Information from such evaluations provides the basis for those items listed below:

1. Assists in the employment of qualified local health department personnel.
2. Provides valuable on-the-job training for local sanitarians.
3. Assists in the passage and strengthening of local ordinances.
4. Informs local health boards of food program needs.
5. Secures necessary publicity for the food protection program.
6. Identifies strengths and weaknesses which may be used for program improvement.

The average rating score (based on a scale of 1-100) was 75 for personnel in 565 retail food establishments. Although this score is considered "acceptable," it obviously still leaves room for improvement which the staff is striving to achieve through the training programs.

One of the most effective ways to prevent food-borne illness and to elevate the sanitary status of the food supply is to employ measures which will prevent objectionable conditions from occurring in food processing and food preparation facilities and in the methods employed in these operations. It is to this end that plans and specifications for 15 food processing plants and 457 retail food establishments were reviewed and 50 training programs were presented to 1,728 persons representing the retail food industry. These activities, combined with our continuing program of direct inspection of food processing plants, food warehouses, food-service facilities in hospitals and state institutions, and other facilities on state property, totaled 1,471 inspections last year.

Another important facet to a food sanitation program is the collection and analysis of samples. During 1982, 600 food samples were submitted to the State Board of Health Food, Drug, and Dairy Laboratory for determination of their bacteriological, filth and/or pesticide or hazardous chemical content. Composition analyses were also conducted to determine labeling accuracy and compliance with food standards. Of this total, 328 were submitted by local health department personnel. Follow-up investigative effort was necessary on 134 samples found to be violative.

The staff of the Division of Retail and Manufactured Foods and local health department personnel investigated 35 suspected food-borne outbreaks in fiscal year 1981-1982 involving 6,405 persons, with 457 persons reported ill. Nine of the outbreaks were confirmed by laboratory examination of foods suspected of causing illness. The number of outbreaks was 18 more than the previous year, with 4,313 more people involved. The etiological agent confirmed in suspect food in seven of the outbreaks was *Staphylococcus aureus,* with *Clostridium perfringens* being confirmed in food in the other two outbreaks. In spite of the number of outbreaks investigated, public health sources believe the actual number of food-borne illness cases that occur may be 10 to 20 times greater than the number reported.

Basic information needed to control food-borne illness is available. We do not need to wait for research results; instead, we need to take existing information and apply it to daily operations. To decrease the incidence of food-borne illness, it is important that public health personnel identify causal factors, develop practicable preventive procedures, and communicate them to persons who can put them into practice. The general public, as well as members of the food industry, need to be informed of factors shown by experience to frequently contribute to outbreaks. Examples of these are temperature abuse of potentially hazardous foods, improper storage containers used in conjunction with high acid foods, poor personal hygiene, and inadequate cleaning of utensils. In addition, personnel must be informed on proper food processing, preparation, and storage procedures.

Food protection personnel in public health must be prepared for the future. Sociological changes already have caused extraordinary growth in the food-service industry, and this expansion is expected to continue in the immediate future. At this time, the retail food industry operates approximately 19,000 establishments in Indiana and provides full- and part-time employment for thousands of Hoosiers.

What does this expansion have to do with food protection? First, it means that more persons will be eating more meals away from home. Thus, more persons than ever before will be at risk in the event that mishandling of food and/or utensils results in an outbreak of food-borne illness. Second, greater demands of consumers on existing facilities may result in temporary lapses in proper food handling techniques. It is these temporary lapses in performance that can cause difficulty.

For further information contact Robert L. Jump, Division of Retail and Manufactured Foods, Indiana State Board of Health, 317/633-0369.

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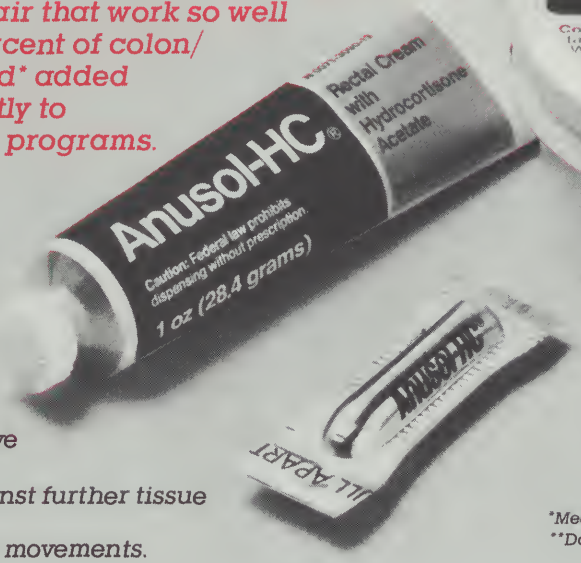
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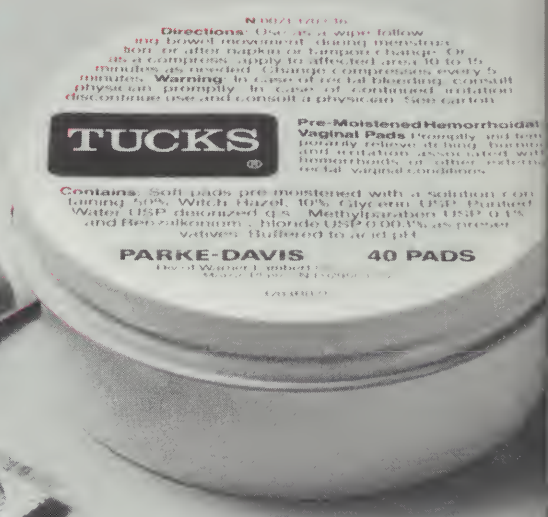
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**Meeting of Am Soc Colon/Rectal Surgeons, May 1980*
***Data on file, Marketing Research Dept, Parke-Davis*

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Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg, bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

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The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.

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Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

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Pediatric Use: Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

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NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories — boxes of 12 (N 0071-1089-07) and boxes of 24 (N 0071-1089-13) in silver foil strips with Anusol-HC printed in black.

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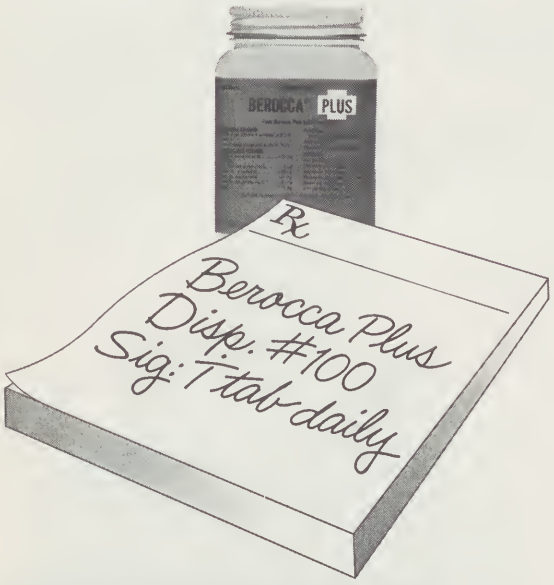
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September 28—Treatment of Coronary Artery Disease by Angioplasty

October 7—Office Orthopaedics for the Primary Care Physician - Inn of the Four Winds

October 7—Current Office Management of Pancreatic Problems: Diabetes Mellitus, Pancreatitis, and Pancreatic Tumors - Terre Haute

October 13—Sexually Transmitted Diseases - Richmond

For the Specialist

September 21, 22—Care of the Seriously Ill Child

September 30—Current Concepts in Cleft Palate Care - Inn of the Four Winds

October 9-11—Perinatal Neonatal Nutrition Conference

October 10-12—Advanced Echocardiography

October 28, 29—American College of Physicians Regional Meeting

For additional information contact: Indiana University School of Medicine, Division of Continuing Medical Education, 1120 South Drive, Indianapolis, Ind. 46223—(317) 264-8353.

Conference on CME

Continuing Medical Education will be the main subject of a meeting Oct. 14-15 at the Drake Oakbrook Hotel, Oak Brook, Ill. The agenda will include discussions on the development of appropriate goals, objectives and evaluation techniques, small workshops, and a debate on the future of CME.

The sponsor is the Illinois Council/CME, which may be queried for further information, 55 E. Monroe, Suite 3510, Chicago 60603—(312) 236-6110.

G.I. Malignancies

The Cincinnati Cancer Conference II will be on G.I. malignancies. It is scheduled for the Westin Hotel, Cincinnati, Nov. 4 and 5. Registration fee, which includes lunch, is $170. The meeting is sponsored by the Bethesda Hospital.

Contact Tom O'Connor at the Hospital, Location 00348, Cincinnati 45264, or phone (513) 569-6336 for more information or for registration forms.

WILLIAM M. DUGAN, JR., M.D.
Clinical Oncology Center
Methodist Hospital of Indiana, Inc.

New information from
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An Orientation to Chronic Obstructive Pulmonary Disease and Lung Cancer: This slide/audiocassette program is available on loan from the American Lung Association of Central Indiana. Chronic bronchitis and emphysema are defined with their manifestations. Progressive anatomical and functional lung changes, irreversible damage and long-term debilitation are emphasized. The causes, changes in lung tissues and clinical aspects of bronchogenic carcinoma are described. The 72-slide presentation takes about 33 minutes. The presentation is intended for the health care community, health science students and the general public; the language is clear and descriptive, and the illustrations, photo-micrographs and figures create a rich visual context for learning. Requests for the program can be made by calling (317) 634-5864.

American Cancer Society National Conference on Advances in Cancer Therapy: This national conference will be held Dec. 8-10 at the Waldorf-Astoria Hotel in New York City.

Continuing medical education objectives are to: increase knowledge of the new scientific and technical developements which impact on cancer treatment; increase understanding of the relationships of newer therapeutic modalities employed in cancer treatment and the multidisciplinary approach to patient management; promote the adoption of a more positive approach to the curability of cancer when appropriate treatment is utilized; and increase understanding of the differences between standard treatment regimens, protocol studies and clinical investigation in cancer therapy trials.

The multidisciplinary approach to managing the cancer patient will be stressed. There will be an opportunity for discussion through questions from the audience. Attendance is open to members and students of the medical and health-related professions. Advance registration is required. There is no registration fee. This CME activity meets the AMA criteria for 16.5 hours in Category 1; 16.5 credit hours in Category 2-D, American Osteopathic Association; and 15 prescribed hours, American Academy of Family Physicians.

For additional information write Nicholas G. Bottiglieri, M.D., Advances in Cancer Therapy Conference, American Cancer Society, 777 Third Ave., New York, N.Y. 10017.

Lederle Indigent Patient Program: Lederle Laboratories sponsors a support program for indigent patients whose diagnoses have indicated a need for Methotrexate therapy. While recognizing the importance of completing a Methotrexate treatment regimen once it is initiated, Lederle also realizes that occasionally a physician may have a patient who cannot afford the therapy. To address this problem, Lederle is continuing the Lederle Indigent Patient Program for the assistance of patients whose Methotrexate therapy is consistent with the approved indications and dosages for the drug.

If a patient is unable to begin Methotrexate therapy or is in jeopardy of treatment interruption because of economic considerations, please write L.B. Ferstenberg, M.D., Professional Medical Services, Lederle Laboratories, North Middletown Road, Pearl River, N.Y. 10965 for further instructions and to receive the forms for program enrollment. Although funds are limited and Lederle may not be able to respond to all requests, every patient will be given consideration.

Precursors to Malignant Melanoma: The National Cancer Institute and the Office of Medical Applications of Research of the NIH are sponsoring a Consensus Development Conference on Precursors to Malignant Melanoma. This conference will be held Oct. 24-26 at Lister Hill Center Auditorium, National Institutes of Health, Bethesda, Md. It will organize and consolidate information on pigmented lesions as precursors to malignant melanoma. It will focus on two precursors, "dysplastic" nevi and congenital nevi, and will determine which data are available on these nevi as melanoma precursors.

Nearly 10% of melanoma patients are members of melanoma-prone families. An estimated 50% of melanoma-prone family members have "dysplastic" nevi, a distinctive type of mole that appears to be unusually susceptible to malignant transformation. At least one-third of all melanomas have histologic evidence of a "dysplastic" precursor at their margin. Although no data exist on how many people in the general population have "dysplastic" nevi, recent studies have suggested that their prevalence is higher than previously estimated, perhaps as high as 5%. An accurate estimate of the incidence of malignant transformation in congenital nevi is not available, but there is considerable documentation that malignancy can arise within them.

The conference will bring together biomedical investigators, medical specialists in the field of dermatology, pathology, epidermiology, oncology, surgery, internal medicine, and pediatrics, other health professionals, consumers, and representatives of the public. Following two days of presentation by medical experts and discussion by the audience, a Consensus Panel will consider the scientific evidence. The panel members, drawn from the medical professions, organizations interested in cancer prevention, and lay persons, will formulate a draft statement. On the third day, Consensus Panel Chairperson Dr. Ruth K. Freinkel, professor of dermatology, Northwestern University Medical School, will read the consensus statement before the conference audience and invite comments and questions.

As an organization accredited for continuing education, the NIH is applying for Category 1 credit hours applicable towards the Physician's Recognition Award of the American Medical Association for this conference.

For program information contact Rosemary Yancik, Ph.D., Division of Resources, Centers and Community Activities, National Cancer Institute, NIH, Blair Building, Room 729, Silver Spring, Md. 20205—(301-427-8636).

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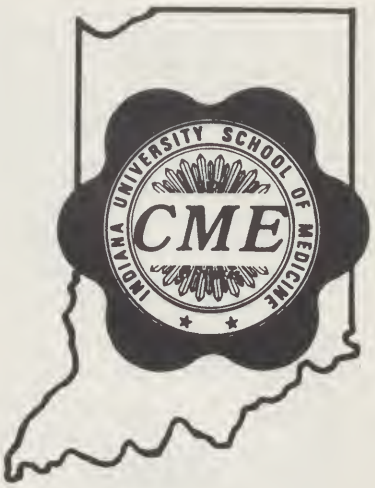
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As an organization accredited for continuing medical education, the Indiana University School of Medicine certifies that this CME activity meets the criteria for one credit hour in Category 1 for the Physician's Recognition Award of the American Medical Association, provided it is used and completed as designated.

To obtain Category 1 credit for this month's article, complete the quiz on page 639.



Some Newer Antibiotics

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PRACTICING PHYSICIANS are quite aware that many antibiotics have been released recently for clinical use. Others are under active clinical investigation and will become available in the near future. This article will comment on several of these new agents and how they may fit into treatment strategies at present. As further experience is obtained with these compounds, some modification and refinement of indications undoubtedly will occur.

Discussion of these antibiotics will focus on their effects against specific organisms, as determined from culture and sensitivity data. Physicians should attempt to obtain reliable samples from smears and cultures whenever possible, at least when dealing with serious infections. Infectious disease syndromes are often non-specific, and without such information it is difficult to be certain of the etiologic agent. Even after the agent is identified, strains of many organisms have developed resistance to one or more antibiotics, and in these cases the sensitivity information is necessary for optimal therapy. If it is possible to specifically identify the offending organism and its particular susceptibility to various antibiotics, usually the provisional regimen can then be simplified or revised, sometimes with an increase in effectiveness and often with a decrease in antibiotic cost and/or risk of side effects.

For many infections, particularly those caused by gram-positive organisms, previously available antibiotics are fully as effective or more effective than the new antibiotics, as well as being often less toxic and considerably less expensive. However, some very effective "older" agents, especially the aminoglycosides which have been preferred in serious gram-negative infections, have had a significant frequency of sometimes serious side effects. In addition, some organisms are becoming resistant to them. Most of the newer antibiotics have been developed in an attempt to broaden the spectrum of action and/or decrease the risks of toxicity when treating gram-negative infections.

Table 1 shows some representative data which demonstrate the incomplete

TABLE 1

Aerobic Gram-Negative Blood Culture Isolates

(% of Strains Susceptible to each Antibiotic)

	Ceph.	Cefo.	Cefam.	Tob.
Acinetobacter (9)	0	11	11	89
Enterobacter aerogenes (12)	12	0	42	83
Enterobacter cloacae (12)	0	0	67	100
Escherichia coli (65)	74	98	91	88
Klebsiella oxytoca (4)	100	100	100	100
Klebsiella pneumoniae (29)	90	90	86	87
Proteus (6)	86	100	86	100
Pseudomonas (41)	0	0	0	93
Serratia (14)	0	29	0	64
All	49	61	64	89

Susceptibilities of aerobic gram-negative blood culture isolates from University Hospital, Indianapolis, to cephalothin (ceph.), cefoxitin (cefo.), cefamandole (cefam.), and tobramycin (tob.). The numbers of isolates tested are given in parentheses in the first column.

coverage of a number of "older" antibiotics against serious gram-negative infections. Listed are the antibiotic susceptibilities of several gram-negative organisms isolated from the blood of septic patients at our medical center. Although these data relate to a single institution in one time period and emphasize isolates from seriously ill patients, some of whom have compromised immune systems, they represent the type of patient for whom the new antibiotics are most relevant. (Incidentally, practicing physicians should periodically request similar data from their hospitals about current local patterns of antibiotic susceptibility and resistance. In any hospital, these will change with time. This will help in making educated guesses about antibiotic coverage before culture results return.)

In *Table 1*, the susceptibilities of several gram-negative aerobes are compared for cephalothin, a "first generation" cephalosporin; cefoxitin and cefamandole, both "second generation" cephalosporins; and tobramycin, an aminoglycoside. As will be noted, cephalothin was active against the majority of *E. coli, Klebsiella*, and *Proteus*, but had limited or no activity against *Acinetobacter, Enterobacter, Pseudomonas*, or *Serratia*. Even among *E. coli*, however, only 74% of the strains were susceptible to cephalothin. The "second generation" cephalosporins, cefoxitin and cefamandole, had increased activity with cefoxitin being particularly active against additional *E. coli* strains, and cefamandole being active against additional *Enterobacter* strains. However, all *Pseudomonas* and most *Serratia* and *Acinetobacter* were still resistant. Tobramycin was overall clearly more effective against these gram-negative organisms, but still only 89% of th aerobic gram-negative isolates were susceptible, with resistance being particularly high among *Serratia* and *Enterobacter*.

Table 2 documents the percentage resistance of a similar group of aerobic gram-negative organisms to the previously available aminoglycosides gentamicin, tobramycin, and amikacin. There has been a problem with increasing aminoglycoside resistance at our hospitals and many other hospitals. When aminoglycosides first became available, almost all gram-negative aerobes would have been sensitive to any of these compounds. Note that 39% of *Providentia*, 16% of *Pseudomonas*, and 20% of *Serratia* are now resistant to gentamicin in this series. In general, most strains resistant to gentamicin are also resistant to tobramycin. However, amikacin, which is resistant to most aminoglycoside-inactivating enzymes, had a lower rate of resistance.

In summary, these data and those from other centers have documented that first generation cephalosporins are not effective against many aerobic gram-negative infections now encountered in referral centers. Second generation cephalosporins have a somewhat broader spectrum against gram-negative organisms, but many of the latter are still resistant to these drugs. In addition, we are seeing the development of resistance to the aminoglycosides, which have been the drugs of choice for treatment of cephalosporin-resistant organisms for almost two decades in spite of their sometimes significant toxicity.

Third Generation Cephalosporins

Table 3 lists a large number of cephalosporins now currently available in this country, or likely to be in the very near future. Those currently available have their common trade names also listed. First generation cephalosporins are useful against gram-positive organisms including many (but not all) coagulase-positive staphylococci. As shown in *Table 1*, they do have additional activity against a few gram-negative organisms including *E. coli, Klebsiella*, and *Proteus mirabilis*. Second generation cephalosporins have increased activity against some of the gram-negative infections, particularly cefamandole against *Enterobacter*, and as will be discussed shortly, cefoxitin against the anaerobic *Bacteroides fragilis* group.

Bacteria can become resistant to the cephalosporins by several different mechanisms: First, cephalosporins may

TABLE 2

Resistance of aerobic gram-negative isolates to gentamicin (genta.), tobramycin (tobra.), and amikacin (am.). Data are from Indiana University Medical Center.

	% Resistant		
	Genta.	Tobra.	Am.
Enterobacter cloacae (64)	14	16	5
Escherichia coli (509)	2	2	0
Klebsiella (190)	12	15	0
Proteus mirabilis (105)	2	5	1
Providencia (57)	39	35	5
Pseudomonas (290)	16	7	2
Serratia (80)	20	27	4
Total	9.4	8.7	1.2

not penetrate through the cell wall to the site of action of cephalosporins; second, there may be alterations in the target of cephalosporins, predominantly the penicillin binding proteins; and third, there may be destruction of the cephalosporins by a variety of different beta lactamase enzymes produced by the bacteria. Both penicillins and cephalosporins contain a beta lactam ring, and disruption of this ring destroys antibiotic activity. Third generation cephalosporins have had clinical modifications of the beta lactam ring in such a way as to inhibit the degradation of this ring by the various beta lactamases, and/or to allow better penetration of the antibiotic through the cell wall.

The third generation cephalosporins, as exemplified by moxalactam and cefotaxime, are highly active against many strains of *E. coli, Enterobacter, Proteus, Serratia*, and *Providentia* which are resistant to first and second generation cephalosporins. In contrast to the first and second generation cephalosporins, they have some activity against *Pseudomonas* organisms, but it is still limited. Well over 50% of *Pseudomonas aeruginosa* strains are resistant both to moxalactam and to cefotaxime. Even against those strains which are susceptible to these two agents, concentrations required to inhibit the *Pseudomonas* organisms are in the order of 8 to 16 micrograms per ml., whereas susceptible *E. coli* and *Serratia* are frequently susceptible to 0.25 micrograms per ml. Cefoperazone is somewhat more active *in vitro* against these organisms, and some of the new cephalosporins, particularly ceftazidime, are active against more *Pseudomonas aeruginosa* strains than any of the third generation cephalosporins currently available in this country. With the exception of *Pseudomonas aeruginosa*, over 95% of aerobic gram-negative infections are susceptible to cefotaxime and moxalactam at the present time. However, there are reports of *Enterobacter* and previously sensitive *Pseudomonas* developing resistance to these cephalosporins, suggesting that these percentages may fall in the future.

All cephalosporins are active against most anaerobes, with the exception of the *B. fragilis* group. Cephalosporins have variable activity against this latter group. *Table 4* shows the percentage of resistant *B. fragilis* strains against several cephalosporins and other antibiotics. First generation cephalosporins have quite limited activity against this group and are not included in the table. The second generation cephalosporin, cefoxitin, is reasonably effective, with only 6% of strains being resistant. Other second generation compounds are not this effective, nor are the third generation agents, cefoperazone, cefotaxime, and moxalac-

TABLE 3

Classification of Cephalosporins

First Generation	Second Generation	Third Generation
cefaclor (Ceclor)	cefamandole (Mandol)	cefmenoxime
cefadroxil (Duricef, Ultracef)	cefmetazole	cefoperazone (Cefobid)
cafazolin (Ancef, Kefzol)	cefotiam	cefotaxime (Claforin)
cefonacid	cefoxitin (Mefoxin)	cefsulodin
ceforanide	cefuroxime	ceftazidime
cephalexin (Keflex)		ceftizoxime
cephaloridine		ceftriaxone
cephalothin (Keflin)		moxalactam (Moxam)
cephapirin (Cefadyl)		
cephradine (Anspor, Velosef)		

Cephalosporins now available or under clinical investigation. Those currently available for general use in the USA are listed with their trade names in parentheses.

tam. Although clindamycin is commonly chosen when anaerobic infection is suspected, it should be noted that 7% of strains were resistant to this non-cephalosporin antibiotic. Increasing resistance has been developing among *B. fragilis* strains to both the cephalosporins and to clindamycin, similar to the increasing resistance occurring among aerobic gram-negative bacteria. In this series, only metronidazole and chloramphenicol were active against all isolates.

The three currently available third generation cephalosporins vary in their pharmacology. Moxalactam has a half-life of about 2.3 hours and is excreted largely unchanged in the urine. Cefoperazone has a similar half-life, but is excreted largely in the biliary tract. Therefore, doses of cefoperazone need little or no alteration in the patient with poor renal function, whereas doses of moxalactam should be reduced. Cefotaxime has a shorter half-life of the active compound and is metabolized to a desacetyl form of cefotaxime. Against most organisms, the metabolite is also highly active *in vitro* against gram-negative bacteria. There are no comparative data demonstrating that these pharmacological differences have clinical applications. For example, there are no comparative clinical data showing that the increased biliary concentrations of cefoperazone are more efficacious in treating biliary tract infections nor are there data demonstrating that the longer half-life of moxalactam results in better clinical response.

One pharmacological advantage which is clinically important is the ability of moxalactam and cefotaxime to penetrate into the spinal fluid. With the increased activity of these drugs against aerobic gram-negative bacteria, this pharmacological advantage has permitted treatment of gram-negative meningitis previously requiring intrathecal aminoglycosides. It should be noted that even third generation cephalosporins are not the agent of choice for gram-positive meningitides.

There are disadvantages associated with the third generation cephalosporins, and they will not simply replace the earlier generations of compounds for all purposes. They are actually somewhat less active than the earlier cephalosporins against gram-positive infections. Most notably, coagulase-positive staphylococci are considerably less susceptible to third generation than first generation cephalosporins, and third generation compounds should not be used when staphylococcal infection is suspected. All enterococci are resistant to all third generation cephalosporins, and some *Strep. viridans* strains are highly resistant to moxalactam. As was seen in *Table 4*, the second generation compound cefoxitin is more effective against the anaerobic *B. fragilis* group than third generation agents. Moxalactam and cefoperazone have an Antabuse-like effect, but cefotaxime does not. Moxalactam has been reported to sometimes cause a hemorrhagic diathesis, with prolongation of prothrombin and/or bleeding times. Debilitated patients receiving long-term therapy with this agent should have periodic monitoring of prothrombin times, and possibly also receive parenteral vitamin K to prevent hypoprothrombinemia. Prolongation of the bleeding time indicates platelet dysfunction, and the drug should be discontinued if this causes clinical problems. Although a cephalosporin is generally preferable to the more toxic aminoglyclosides, probably serious *Pseudomonas* infections should be treated with an aminoglycoside along with a third generation cephalosporin, because development of resistance by this organism to cephalosporins can occur, even during a course of therapy. It should be kept in mind that third generation cephalosporins are distinctly more expensive than first generation cephalosporins (up to four to five times), and should not be used in their place except when a therapeutic advantage is likely. However, because of their broader spectrum, in some cases they may be able to replace older standard two-drug regimes, and then the total cost may be less. Finally, it should be remembered that the clinical structure of all cephalosporins is similar to that of the penicillins, and these compounds should be used with great caution in patients with a history of severe allergic reactions to penicillin.

TABLE 4

Resistance of *B. fragilis* group to nine antibiotics.

Antimicrobial Agent	Percentage Resistant*	
Cefoperazone	51%	(32)
Cefotaxime	45%	(32)
Cefoxitin	6%	(32)
Chloramphenicol	0%	(16)
Clindamycin	7%	(8)
Metronidazole	0%	(8)
Moxalactam	19%	(32)
Piperacillin	8%	(128)
Tetracycline	60%	(4)

*The antibiotic concentration which defines "resistance" is given in parentheses for each antibiotic and is expressed in micrograms per ml.

In summary, first generation cephalosporins are the drugs of choice for susceptible gram-positive infections in patients mildly allergic to penicillins (a penicillin is preferred if there is no allergy to that group), and are the drugs of choice for susceptible *E. coli, Klebsiella,* and *Proteus mirabilis* because of their relatively low toxicity. For most community-acquired diseases, they remain the preferred cephalosporins. For prophylaxis against staphylococcal infections, first generation cephalosporins also remain the drugs of choice. Of the second generation cephalosporins, cefamandole is active against some *Enterobacter* species, and a few other gram-negative infections which are resistant to first generation cephalosporins. Cefoxitin is the most active of the currently available cephalosporins against the *Bacteriodes fragilis* group of infections, but a non-cephalosporin antibiotic may be preferred.

The third generation cephalosporins should not be used for prophylaxis. They are the drugs of choice for susceptible aerobic gram-negative infections known to be resistant to first and second generation cephalosporins or in clinical situations where resistant infections are like-

ly. Examples might include certain hospital-acquired gram-negative pneumonias, urinary tract infections due to multiresistant bacteria, and the occasional patient with a meningitis caused by a susceptible gram-negative organism. As mentioned above, in the treatment of sensitive *Pseudomonas* infections, a third generation cephalosporin should be combined with an aminoglyoside.

TABLE 5

Susceptibilities of *B. fragilis* **group** *(B. fragilis, B. thetaiotaomicron, B. vulgatus,* **and** *B. distasonis)*, **and** *clostridium perfringens* **to carbenicillin (carben),ticarcillin (ticar), piperacillin (piper),mezlocillin (mezlo), and azlocillin (azlo).**

PIPERACILLIN, MOZLOCILLIN, AZLOCILLIN

Bacteria (No. strains)	% of Strains Susceptible				
	Carben	Ticar	Piper	Mezlo	Azlo
B. distasonis (24)	66	90	90	90	90
B. fragilis (299)	81	90	95	94	92
B. thetaiotaomicron (45)	87	84	91	93	89
B. vulgatus (24)	100	92	96	100	88
C. perfringens (41)	95	95	98	95	95

Some New Penicillins

As in the case of the third generation cephalosporins, the new penicillins have been developed primarily to extend the penicillin spectrum against gram-negative organisms. Previously available extended-spectrum penicillins have included ampicillin, carbenicillin, and ticarcillin.

Ampicillin is active against several gram-negative organisms, including many strains of *E. coli, Proteus mirabilis, Salmonella, Shigella*, and *Haemophilus influenzae*. Most strains of *Klebsiella* and all strains of *Pseudomonas* are resistant. It is somewhat less active than penicillin G against most gram-positive species, but is somewhat more active against enterococci. Like all of the other extended-spectrum penicillins, it is not resistant to the beta lactamases produced by *Staph. aureus*, and is therefore ineffective against most current *S. aureus* infections. Carbenicillin has a gram-negative spectrum similar to that of ampicillin, but with the important additions of activity against certain strains of *P. aeruginosa*, the indole-positive *Proteus* species and *Enterobacter* species. Ticarcillin is similar in activity to carbenicillin, although it has somewhat more activity against *P. aeruginosa*. None of the compounds are active against *Klebsiella* or *Serratia*.

Recently, three new extended-spectrum penicillins have been released for use in this country: azlocillin (Azlin), mezlocillin, (Mezlin), and piperacillin (Pipracil). *In vitro*, azlocillin and piperacillin appear to have more activity against *P. aeruginosa* than ticarcillin and carbenicillin, although exact comparisons are somewhat uncertain because of an "inoculum effect," i.e., with different sizes of inocula, the relative ratios of minimal inhibitory concentrations and minimal bactericidal concentrations seem to change. The clinical significance of this is unclear. However, at achievable serum concentrations, piperacillin can be expected to inhibit approximately 90% of *P. aeruginosa* strains, including some that are resistant to carbenicillin and ticarcillin. Mezlocillin appears to have about the same activity as carbenicillin and ticarcillin against *P. aeruginosa*. Mezlocillin and piperacillin have increased activity against *Klebsiella* and *Serratia*; the majority, but not all strains, of these organisms are susceptible to the new penicillins.

Most, but not all, members of the *B. fragilis* are sensitive to these extended-spectrum penicillins. *Table 5* shows data concerning these organisms; the three newest penicillins are only slightly more active than carbenicillin and ticarcillin against most of them.

As in the case of the cephalosporins, the new penicillins will not supplant older members of the group except for specific indications. These three new penicillins have the broadest spectrum of activity of any currently available penicillins but should not be used when earlier penicillins will serve. Penicillin G is an excellent drug, and remains the preferred penicillin for most infections sensitive to it. None of the newer penicillins discussed in this section are resistant to the beta-lactamase enzymes produced by *S. aureus*, and alternative penicillinase-resistant penicillins are available. Although the spectra of the new penicillins are broad, minimal inhibitory concentrations against some organisms such as *K. pneumoniae* are relatively high. They may have a place in the treatment of *P. aeruginosa* infections, but as in the case of third generation cephalosporins, they should be given in combination with an aminoglycoside, because of problems with potential development of resistant organisms when used alone, and because of the difficulty in being sure about their *in vivo* inhibitory and bactericidal concentrations. No clinical trials have yet demonstrated a clear superiority of the three newer penicillins over carbenicillin and ticarcillin. Except for *Klebsiella* and *Serratia*, organisms highly resistant to carbenicillin are also likely to be resistant to the newer penicillins. They should not be used alone for treatment of serious infections. They are also more expensive than the earlier penicillins.

A New Aminoglycoside

Gentamicin has been available for use for more than two decades, and was initially the drug of choice for treatment of *Pseudomonas* infections, cephalothin-resistant *Klebsiella* infections, most

Enterobacter infections, and many *E. coli* infections. When tobramycin was introduced, it was known to be somewhat more active *in vitro* against *Pseudomonas aeruginosa*, but somewhat less active than gentamicin against some *E. coli* and other aerobic infections. In animal models, tobramycin has been clearly shown to be less nephrotoxic than gentamicin. There is also limited evidence that elevations of creatinine are less likely to occur in patients receiving tobramycin than in those receiving gentamicin. For these reasons, some physicians have preferred tobramycin to gentamicin. Strains that have developed resistance to gentacimin are usually resistant to tobramycin. Amikacin is another aminoglycoside which has been clinically available. As previously demonstrated in *Table 2*, a major advantage is that it has been resistant to most of the enzymes produced by bacteria which inactivate tobramycin or gentamicin. The most clear indication for using amikacin would be in infections known to be resistant to gentamicin and tobramycin, but sensitive to amikacin. In a hospital in which 5% or more organisms are gentamicin-resistant, one should probably initiate therapy with an aminoglycoside to which resistance is less frequent.

Netilmicin (Netromycin) is a new aminoglycoside. It is resistant to some of the enzymes which degrade tobramycin or gentamicin, but is not as resistant to these enzymes as amikacin. Some initial reports suggest that it may be less ototoxic than gentamicin. This needs further confirmation. However, if it should turn out to be true, then netilmicin may be used more extensively in the future. Otherwise, it does not have any obvious superiority to previously available aminoglycosides.

Future Developments

Current clinical indications for each of these newer antibiotics have been discussed in the appropriate sections of this paper and will not be repeated here. Future controlled clinical trials will be needed to better define their roles in comparison with previously available antibiotics, and it will be necessary to see how much of a problem the emergence of resistant strains of organisms will become. It is clear that there is no new antibiotic yet which will be the drug of choice for most infections. Physicians will still need to predict in each clinical situation what sort of infection is likely to be present, try to obtain appropriate culture data, and choose among currently available antibiotics judiciously. In today's economic climate, cost factors must also be considered.

The pharmaceutical chemists have demonstrated that they can modify the molecular structure of antibiotics to extend their spectrum of action, but a tradeoff has often been necessary, with some decrease in potency against other organisms which were more effectively treated by earlier analogs, and we still need the aminoglycosides for combination therapy of at least some of the more serious gram-negative infections.

Interesting additional antibiotics will be released soon. Thienamycin, a cephalosporin-like drug, demonstrates an excellent *in vitro* spectrum of action. There are also new compounds that interfere with bacterial beta lactamases; these could possibly be combined with antibiotics which would otherwise be effective except for their degradation by these enzymes.

The search continues for antibiotics with broader spectra, increased potency, decreased toxicity, and decreased likelihood of emergence of resistant strains. For the foreseeable future, hospital committees will need to decide which of the many available antibiotics should be stocked, and clinical laboratories will need to decide which should be included in their routine *in vitro* antibiotic sensitivity tests. In general, the physician should attempt to use the older penicillins and cephalosporins for those infections in which they are known to be effective, and reserve the newer antibiotics for infections not effectively treated by the older antibiotics.

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Maternal Mortality in Indiana: A Report of Maternal Deaths in 1981

WILLIAM D. RAGAN, M.D.
Indianapolis

THE FOLLOWING is the annual report of the Indiana Maternal Mortality Study Committee. A total of nine maternal deaths occurred in 1981. In that year, Indiana recorded 84,651 live births. This gives the state an official maternal mortality rate of 10.6 deaths per 100,000 births in 1981. The committee met in open session at Grand Rounds at the Wishard Memorial Hospital on Wednesday, June 9, 1982. Closed session was then held at Indiana University Medical Center Student Union Building for a review of the remaining cases. Each case was presented for discussion, establishment of final diagnosis, and assignment with regards to preventability and responsibility.

Case #742 was a 24-year-old G2, P1, at 38 weeks gestation who died of a subarachnoid hemorrhage. A cesarean section was performed and a 5-pound, 5-ounce living infant delivered. An autopsy was performed. The death was considered nonobstetric.

Case #743 was a 33-year-old G9, P9, at 34 weeks gestation. She died of hemorrhage complicating a cesarean section for abruption of the placenta. A 5-pound, 5 ounce infant was delivered. An autopsy was not performed.

Case #744 was a 21-year-old G1, P0, at 40 weeks gestation. She had a cesarean for breech presentation. She died of a pulmonary embolus. A 7-pound, 7-ounce living infant was delivered.

Case #745 was a 32-year-old G2, P0, at 40 weeks gestation. She died of hemorrhage following a cesarean section for a labor management problem. Lacerations were involved. A 7-pound, 7-ounce live born was delivered. An autopsy was performed.

Case #746 was an epidural anesthetic death in a patient at term.

Case #747 was a patient with essential hypertension with superimposed preeclampsia, and rupture of the liver.

Case #748 was an 18-year-old G1, P0, at 37 weeks who died of a pulmonary embolus. A term live born infant was delivered.

Case #749 was a 20-year-old G1, P0, who died of air embolism as a result of oral sex activity. She was at 27 weeks gestation. Autopsy confirmed the diagnosis.

Case #750 was a 40-year-old G7, P6, who died of acute appendicitis with perforation in a pregnancy at 34 weeks gestation. The patient had refused medical care for religious reasons.

Maternal mortality is still with us. Undoubtedly, there are a number of "near misses." Fifty to seventy five per cent of maternal deaths are preventable or have preventable factors. With the increased incidence of cesarean section, we are seeing an increase in maternal morbidity and on occasion, mortality. Although the numbers are small, we are seeing maternal mortality occurring where home births are being carried out without prenatal care or physician involvement.

Please report any Indiana maternal mortality to Dr. William D. Ragan, Department of Ob-Gyn, Indiana University Medical Center, 926 W. Michigan Street, Indianapolis, Indiana 46223.

Dr. Ragan is chairman of the 14-member Indiana Maternal Mortality Study Committee. An earlier report by the committee, "Maternal Mortality in Indiana: A Report of Maternal Deaths in 1980," appeared on page 628 of the September 1982 issue of THE JOURNAL.

Members of the Indiana Maternal Mortality Study Committee are Gordon C. Cook, M.D., Rick Cross, M.D., Ted Danielson, M.D., Clarence Ehrlich, M.D., Charles Gillespie, M.D., Jesse D. Hubbard, M.D., Charles Kelley, M.D., Elfred Lampe, M.D., Robert H. Oswald, M.D., George Porter, M.D., William D. Ragan, M.D., Sam Ravindran, M.D., Craig Spence, M.D., and Kathy Visovatti Weaver, R.N.

An Integrated Trio of Significant Articles

Editorial

W. D. SNIVELY, JR., M.D.
Evansville

IT APPEARS STRANGE that the elucidation of the great concept on which our understanding of body fluid disturbances is based (by the French physiologist Claude Bernard in 1857) followed rather than preceded the first successful treatment of a body fluid disturbance (by Thomas Latta of Scotland, who gave lifesaving intravenous infusions to patients with Asiatic cholera in 1831). The pioneer work of both Latta and Bernard was largely ignored until early in this century, when a group of pediatricians in this country investigated the body fluid disturbances occurring in the then-rampant diarrhea of infants.

Today, it is widely recognized that a cluster of body fluid disturbances are of incalculable importance; indeed, as Jose Montenegro of Sao Paulo, Brazil, put it, "[They] represent the common denominator of a host of illnesses."

This and forthcoming issues of THE JOURNAL will present three articles by the same trio of authors on several body fluid disturbances. Closely integrated, as one would expect from joint authorship, they provide an excellent summary of the clinically important essentials of the crucially important imbalances of sodium, of potassium, and of acid-base equilibrium. All three follow a similar format: basic pertinent physiology, clinical and laboratory tools available, nature of the imbalances under the title, and properly detailed therapeutic considerations.

From the Physical Therapy Dept., University of Evansville, Evansville, Ind. 47702.

The First Article

In "Disturbances in the Serum Sodium Concentration," the senior author, Friedrich C. Luft, *et al.*, emphasize the necessity for a thorough understanding of hyper- and hyponatremia if the clinician is to avoid development of these disorders. As the authors point out, many disturbances in the serum sodium stem from "therapeutic misadventures." In a word, "vigilance equals avoidance."

Other authors have referred to the "primacy of sodium," and in this the current authors would certainly agree. They emphasize that evaluation of serum sodium disturbances requires neither complex nor expensive laboratory work. The most important ingredient of the evaluation is clinical judgment. They then cover hypernatremia, its nature and its treatment, and then delve into the perhaps more involved subject of hyponatremia. The hyponatremia must, of course, be genuine. They give guidelines for distinguishing this from pseudohyponatremia. In their coverage of this phase of the paper, they give proper significance to the syndrome of inappropriate secretion of antidiuretic hormone (SIADH), which has been called "nemesis for the unwary."

Treatment of the different forms of hyponatremia varies greatly, and the authors emphasize these differences.

Table 1 of the article presents a diagnostic scheme for hyponatremia, which impresses this writer as remarkably useful. The four figures accompanying the article show graphically and with great clarity what happens to the extracellular fluid compartment and the intracellular fluid compartment when 1) isotonic saline is given; 2) hypertonic saline is administered; 3) water is added to the body; and 4) sodium chloride is lost.

The Second Article

The second article in the series, "Disorders of Potassium Balance," has as its senior author Kevin J. Lavelle. The authors expand on the kidney's contribution to potassium balance, pointing out that the kidney is the major excretory organ for potassium, providing the only controlled output.

Acid-base balance is closely related to potassium homeostasis, and the authors expand on the complex interrelationships, summarizing the varying degrees of potassium deficit in the four acid-base disturbances.

Hyperkalemia is covered in appropriate detail, emphasizing the fact that treatment of hyperkalemia is directed at preventing cardio toxicity and emphasizing the value of the electrocardiographic changes.

Then hypokalemia is dealt with; the authors point out that renal loss of potassium most commonly results from diuretic therapy. They caution that care must be exercised in treating hypokalemia "since the magnitude of the potassium deficit is not readily measured clinically and the amount required to replace it cannot be predetermined." Useful guidelines are then provided for treatment.

The three tables accompanying this article provide splendid summaries of: 1) causes of hyperkalemia; 2)causes of

hypokalemia; and 3) sodium and potassium concentrations in gastrointestinal secretions in mEq./L.

The Last Article

The third article of the trio, "A Practical Approach to Acid-Base Disorders," has as its senior author George R. Aronoff. Tools required for the physician to obtain a rational approach to acid-base disturbances include a few readily available laboratory tests and an understanding of acid-base homeostasis.

The authors point out two essential basic facts: metabolic disturbances of acid-base disorders primarily involve the serum bicarbonate concentration, respiratory disorders, the pCO_2. When these processes occur singly, even with compensation they are designated "simple." When they occur simultaneously, we have mixed acid-base disorders.

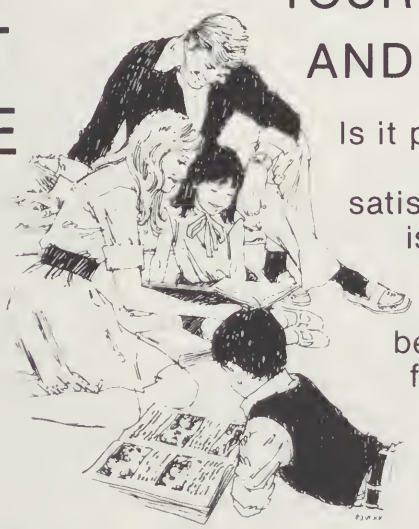
This writer is delighted to see the authors de-emphasize the Henderson-Hasselbalch equation as "too cumbersome to be useful clinically." They introduce Kassirer and Bleich's rearrangement of the equation, with the serum hydrogen in nanomoles per liter rather than in terms of the confusing pH. They also give a simple method for converting pH to nanomoles (which can, of course, be done by use of a table). The authors then lead the reader briefly through acidosis, pointing out the enormous usefulness of the anion gap (sometimes referred to as Delta).

Alkalosis is likewise covered, and the enormous usefulness of the plasma chloride both for diagnosis and treatment is properly emphasized. Finally, the authors discuss compensation for primary disorders.

As was the case with the other two articles, the illustrations are innovative and indeed superb. Figure 1 presents an algorithmic approach to acidosis, and Figure 2 to alkalosis. Figure 3 shows graphically compensatory mechanisms that can be involved in acid-base disorders, with hydrogen expressed as nanomoles per liter, pCO_2 as mm. Hg., and bicarbonate as mEq./L. This ingenious chart should prove invaluable to the clinician desiring to determine whether body compensation is as would be expected in simple acid-base disorders or whether one of the more complex mixed acid-base disturbances is present.

The authors of this useful and well-done mini-text on perhaps the three most important body fluid disturbances are eminently qualified, all being members of the Nephrology Section, Department of Medicine, Indiana University Medical Center.

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Disturbances in the Serum Sodium Concentration

FRIEDRICH C. LUFT, M.D.
GEORGE R. ARONOFF, M.D.
KEVIN J. LAVELLE, M.D.
Indianapolis

Abstract

Disorders of sodium concentration are easily diagnosed by means of careful history, physical examination paying particular attention to hydration, and a few simple laboratory tests. Hypernatremia is generally due to simple dehydration, and requires the administration of appropriate amounts of free water. Hypernatremia in the face of volume expansion suggests salt poisoning from either error or abuse. Hyponatremia should be classified on the basis of hydration. Volume overloaded individuals generally have dilutional hyponatremia and require both sodium and water restriction. Volume depleted individuals should be approached on the basis of the route responsible, i.e., gastro-intestinal tract, kidneys or rarely the skin. They require volume expansion generally with normal saline. Individuals whose state of hydration is relatively normal may have SIADH, impaired diluting ability because of diuretic drugs, or inappropriate water intake. Acute hyponatremia features CNS symptoms and a high mortality. Hypertonic saline or dialysis may be necessary. Physicians must be aware that hyponatremic disorders are frequently iatrogenic. Vigilance equals avoidance.

From the Nephrology Section, Dept. of Medicine, Indiana University Medical Center, Fesler Hall 108, 1120 South Drive, Indianapolis, Ind. 46223.

DISTURBANCES in the serum sodium concentration comprise a common and serious group of disorders confronting clinicians in virtually all fields of medical practice. Prompt diagnosis and appropriate treatment are extremely important, since errors in management may result in mortality or permanent morbidity.

A thorough understanding of hyper- and hyponatremia requires familiarity with the physiology of sodium homeostasis and the regulation of body fluid osmolarity. Such a background enables the application of a simple schema of diagnosis which relies primarily on the clinical examination and a few common laboratory tests.

Moreover, a solid understanding of hyper- and hyponatremia provides clinicians with the necessary skills to avoid the development of these disorders. Unfortunately, in many instances perturbations in the serum sodium concentration occur as the result of therapeutic misadventures.

Sodium Homeostasis

Sodium salts constitute more than 90% of the total solute contained in the extracellular fluid. Since sodium is actively extruded from the intracellular to the extracellular fluid, its salts are largely confined to the latter compartment.

The total body sodium content of the hypothetical 70 kg man approximates 3500 mEq. Although much of the sodium is in solution, substantial amounts of sodium are stored in bone. Under normal circumstances the kidneys serve as the sole route of sodium elimination. The kidneys are able to regulate sodium homeostasis across a wide range of sodium intake which in free-living man may vary from as little as 10 to as much as 400 mEq per day. The kidneys in turn are slaves to humoral regulation, the most important of which are the adrenal axis (aldosterone), and the neurohypophisis (anti-diuretic hormone). The ability of the kidneys to regulate sodium homeostasis may also be profoundly influenced by drugs.

It is crucial for the clinician to understand that the serum sodium concentration reflects the tonicity of the extra-and intracellular fluid (osmolarity). The serum sodium concentration represents the ratio of the amount of water and sodium in the serum. It does not necessarily reflect the total body sodium content. Thus, individuals with hypernatremia can have total body sodium contents that are high, low or normal. Similarly, patients with hyponatremia can exhibit total body sodium excess or deficiency.

Figures 1-4 illustrate changes in the body's fluid compartments with addition or subtraction of either sodium or water. For simplicity's sake we will assume no immediate renal excretion, and we will treat the body as a closed box. The height of each diagram represents the serum osmolality, or serum sodium concentration. The width of each diagram represents the size of either the extra or intracellular compartment.

The addition of isotonic sodium chloride (normal saline) increases the size of only the extracellular compartment (*Fig. 1*). The tonicity of the plasma and the serum sodium concentration do not change appreciably. If the increase of the extracellular compartment is more than 4 to 5 liters, it may be appreciated clinically by weight gain, increased blood pressure and edema. Edema is a valuable clue indicating an increased total body sodium content and extracellular volume expansion.

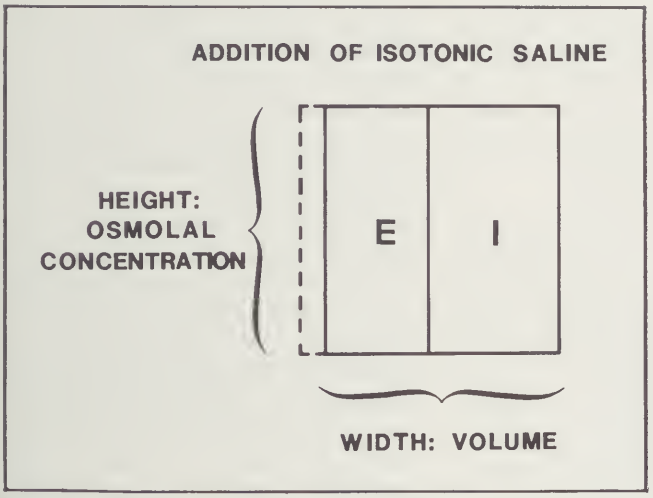


FIGURE 1: Addition of isotonic saline. Vertical axis represents osmolality (serum sodium concentration), horizontal axis represents volume. Note that only the extracellular space expands.

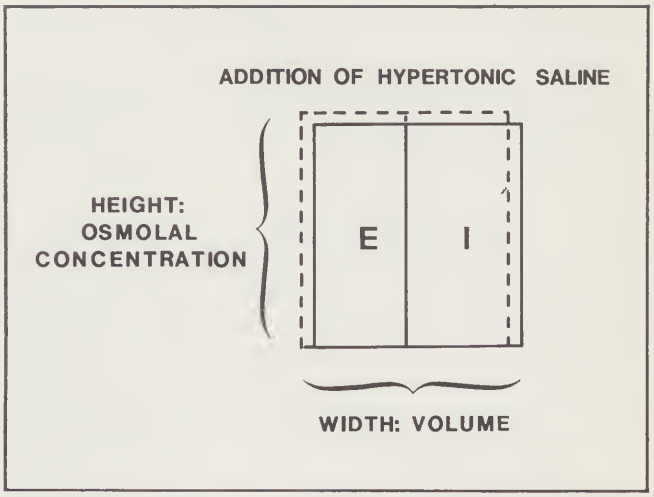


FIGURE 2: Addition of hypertonic saline contracts the intracellular compartment and expands the extracellular compartment.

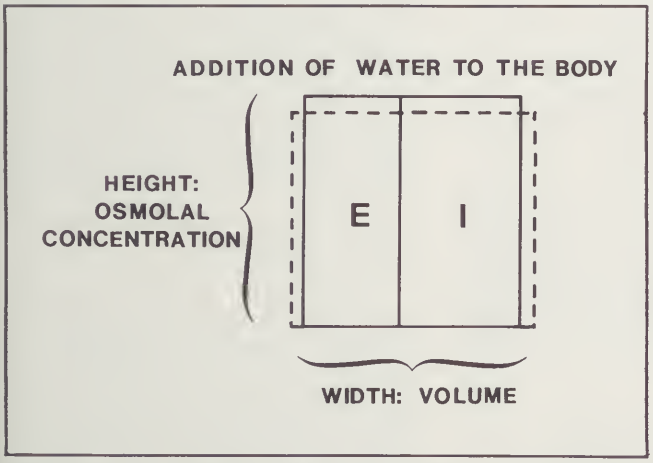


FIGURE 3: Addition of water results in distribution throughout the body with a decrease in serum sodium concentration.

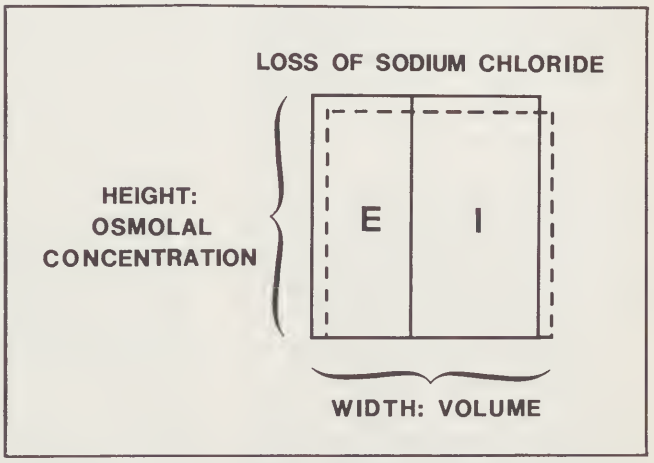


FIGURE 4: Loss of sodium chloride from the body causes a shift of fluid from the extra- to the intracellular compartment as serum sodium concentration decreases.

The addition of hypertonic saline, or the administration of salt without water results in increased osmolality or serum sodium concentration (*Fig. 2*). Water is drawn from the intra- to the extracellular compartment, increasing the size of the latter at the expense of the former. Weight gain, increased blood pressure, and edema would be expected. If water is added to the body, and is not simultaneously removed via the kidneys, the osmolarity of both compartments decreases resulting in hyponatremia. The size of both intra and extracellular compartments increases (*Fig. 3*).

The loss of sodium and chloride from the body via the gastro-intestinal tract, kidneys, or skin results in a decreased osmolality, hyponatremia, and a contracted extracellular compartment (*Fig. 4*). The decreased extracellular osmolarity engenders a shift of water from the extra- to the intracellular compartment, increasing the size of the latter at the expense of the former.

Disorders featuring increased osmolarity (hypernatremia) represent either the loss of free water (simple dehydration), the gain of sodium without water (e.g., salt poisoning) or some combination of the two. Treatment must be directed at repletion of the free water deficit, to restore the osmolarity to normal. Whether or not efforts must be made to remove sodium from the body depends on assessment of the total body sodium content and the adequacy of the extracellular compartment. As mentioned previously, compartment size is

determined largely on clinical grounds.

Disorders in which the osmolarity is decreased (hyponatremia) may feature an extracellular compartment size, and total body sodium content that is high, low or normal. The clinician must make that judgment by examining the clinical situation carefully. On the basis of that judgment the clinician then can decide if sodium is to be given, or if water is to be removed. Errors in judgment in the assessment of compartment adequacy, and total body sodium content may result in very serious consequences in either hyper- or hyponatremic disorders.

Clinical and Laboratory Tools

The evaluation of serum sodium disturbances is not difficult, nor does it require complex or expensive tests. Instead, the evaluation relies largely on clinical judgment, a euphemism for common sense. The assessment of adequate hydration and the total body sodium content requires historical information, and a thorough physical examination. Measurement of pulse and blood pressure in both supine and upright or tilted posture, careful inspection of skin and mucous membranes, and a search for edema are particularly helpful.

Pertinent laboratory tests include serum electrolytes, serum creatinine to assess renal function, urine sodium concentration, and urine specific gravity or osmolarity. Blood sugar and serum lipid concentrations are occasionally helpful. Other tests directed at a specific organ system such as the liver or adrenal gland should be obtained if clinically indicated. Rarely, exotic tests such as measurement of circulating anti-diuretic hormone levels are warranted. Such determinations may corroborate a particular clinical impression, but are not necessary for management.

HYPERNATREMIA

A loss of body water in excess of sodium, a failure to replace water losses, or the administration or ingestion of excess solute can account for virtually all of the clinically recognized forms of hypernatremia. Brief shifts of hypotonic fluid from the extracellular to the intracellular space occur after bouts of sudden violent exercise, but these shifts are transient and are not of clinical significance.

The dessication of a semicomatose patient, greatly increased urinary losses of water when intake is restricted, large evaporative losses from the skin, gastrointestinal free water losses engendered by hypertonic tube feedings, peritoneal dialysis with hypertonic glucose solutions, and selective depression or elimination of the sense of thirst, all result in what is termed "simple dehydration."

Such hypernatremia fosters depression of the central nervous system, producing lethargy and coma. A specific diagnosis can usually be made on the basis of history alone. The extracellular volume is decreased, and or orthostatic blood pressure and pulse changes can be identified. The mucous membranes are dry and there is no edema. Kidney function should be assessed.

Measurement of the urine specific gravity or osmolarity will identify individuals with diabetes insipidus. Such patients develop serious hypernatremia only when their normal thirst mechanism cannot express itself.

Treatment of Hypernatremia

Treatment is directed at the administration of free water in the form of Dextrose 5% in water. The amount of water necessary to effect correction can be estimated from the formulae:

Ideal body water = 0.6 × body weight in kg. Current body water = (desired Na/current Na) × Ideal body water

Deficit = Ideal body water-Current body water.

This calculation makes the assumption that the ideal body water is roughly equal to 0.6 times the body weight in kilograms. Unfortunately, this assumption is all too frequently not true. Thus, any formula should serve only as a rough guide. Moreover, it is quite possible that the patient with hypernatremia has also suffered some losses of sodium in the process. A reasonable approach is to use the formula above as a rough guide or estimate. No more than one-half the total estimated deficit should be replaced in the first 24 hours.

Hypernatremia may also occur as the result of "salt poisoning," or a greatly increased intake of salt in a constant inadequate volume of water. This disorder does not occur naturally. It may be seen when infants are inadvertently given salt in their formula rather than sugar. It occurs in certain cases of child abuse when adults forcibly give children large quantities of salt, and it occasionally occurs as the result of inappropriate fluid and electrolyte orders from physicians.

These patients feature signs of volume expansion with their hypernatremia. Thus, they usually have high blood pressure and edema. In addition to the administration of free water, efforts must be made to rid the body of excess sodium. If the kidneys are in working order, a loop diuretic, such as furosemide, is helpful. In some instances, dialysis is advisable.

HYPONATREMIA

Hyponatremia constitutes an extremely important entity which demands a rational, regimented approach. All genuine hyponatremic disorders feature a disturbance in water metabolism in that the body is unable to rid itself of free water. Thus, the clinician must assure himself that the hyponatremia is indeed genuine. A marked increase in the serum lipid concentration, or serum protein level may spuriously lower the serum sodium concentration.

Recall that sodium is dissolved only in the water present in the serum. If a goodly volume of a given serum specimen consists of fat, the available water will be correspondingly less. However, the sodium concentration is expressed per the volume of the specimen, not per volume of the water available. Such "pseudohyponatremia" can usually be diagnosed on the basis of physical examination, or by mere inspection of the drawn blood specimen.

Marked hyperglycemia can lower the serum sodium concentration by the osmotic shift of water from the intracellular to the extracellular compartment. Such hyponatremia is also "pseudo" in the sense that no actual defect in water metabolism is present. Such hyponatremia is effectively treated with insulin, not with sodium administration or water removal.

Once the clinician has established that the hyponatremia is indeed real, he must very carefully assess the total body sodium and water content. Again, this procedure relies on inspection, blood pressure and pulse measurement, and searching for edema.

Many hyponatremic individuals have an excess of both sodium and water. They are hyponatremic because the water excess excedes the sodium excess and are termed as having "dilutional hyponatremia." Examples appear in *Table 1*. In congestive heart failure and in cirrhosis, the kidney may be unable to adequately excrete water because of decreased renal perfusion, decreased delivery of fluid to the diluting segment of the tubule, or because of the administration of diuretics. In the case of renal failure, the body becomes a closed box.

These disorders are readily diagnosed on the basis of examination, and a few laboratory tests. For instance, in cirrhosis and congestive heart failure, the urine sodium concentration is very low. In renal failure, the urine sodium concentration is elevated.

Dehydrated individuals have lost both sodium and water, but either the sodium loss has been in excess, or they have had some access to free water. These losses are either via the gastro-intestinal tract, kidneys, or the skin (*Table 1*).

History, renal function tests, and measurement of the urine sodium concentration are helpful. If the kidneys are working properly, the urine sodium concentration should be low (<10 mEq/L). If the kidneys are responsible, the urine sodium concentration will be high (>20 mEq/L). If the kidneys are at fault, they are either diseased, their regulating hormones are awry (eg. Addison's disease), or their function has been disturbed by drugs (e.g., Thiazide diuretics).

TABLE 1

Diagnostic Schema for Hyponatremia

1) Is the hyponatremia real or "pseudo"? Obtain serum glucose; consider hyperlipidemia.
2) Are there signs of over hydration? Is edema present?
   a) urine sodium low; consider heart failure, or liver disease.
   b) urine sodium high; consider renal disease.
3) Are relative dehydration and sodium deficit present?
   a) consider gastrointestinal loss.
      urine sodium low; history of diarrhea or laxative abuse.
   b) consider cutaneous loss.
      urine sodium low; burn injury; history of cystic fibrosis.
   c) consider renal loss.
      urine sodium high; intrinsic renal disease; adrenal disease; diuretics or other drugs.
4) Is the state of hydration relatively normal?
   a) urine sodium and osmolarity relatively high (UNa > 10 mEq/1, UOsm > 200 mOsm/kg H20), BUN and Creatinine normal, patient taking no diuretics; consider SIADH.
   b) Patient receiving diuretics; consider drug induced diluting defect.
   c) Psychiatric history, especially in an older patient receiving psychotropic medication; consider polydipsia.

If the state of hydration appears normal, the patient may have the syndrome of inappropriate anti-diuretic hormone secretion (SIADH). To qualify, the patient cannot be receiving drugs that interfere with the generation of a dilute urine (e.g., diuretics), and the patient must have normal renal function. This requirement assures that the kidneys themselves are not responsible for the disturbance.

An elevated anti-diuretic hormone should result in a relatively concentrated urine, the retention of free water in the body, volume expansion with increased glomerular filtration rate, and relative suppression of the renin-angiotensin-aldosterone axis. The latter two features foster an increase in filtered sodium, and a decrease in sodium reabsorption, respectively. Hence, sodium is lost from the body, and the urine sodium concentration is high.

Although water is retained, edema does not occur in SIADH. Two-thirds of the retained water is distributed intracellularly. Recall that edema is the result of excess extracellular fluid. SIADH may result from intracerebral disorders, lung disease, a variety of non-diuretic drugs, rare disorders of metabolism, and from a host of malignant neoplasms.

Excess or "psychogenic" water drinking may cause hyponatremia, but only if the kidney's ability to excrete a dilute urine has been disturbed by disease, the decrease in renal function that accompanies aging, or following the administration of diuretic drugs. Normally, the kidneys are able to excrete in excess of 20 liters of water daily. This ability to make dilute urine is effectively abolished by drugs such as the thiazides, which are frequently given to the elderly who have a decreased capacity to elaborate a dilute urine.

Treatment of Hyponatremia

Treatment of hyponatremia follows the specific diagnosis. Individuals who have excess total body water and sodium should not receive more sodium. Rather, they

should be treated with water restriction. To be effective, such restriction should be to less than 1000 ml per day. By judging daily insensible losses (e.g., 1000 ml/D from lungs and skin), one may estimate the time required for results.

In patients who suffer from a combined loss of sodium and water, efforts should be made to restore circulating fluid volume to normal. Normal saline is adequate for that purpose.

Acute hyponatremia causes weakness, lethargy, delirium, coma, seizures, and death. The mortality exceeds 50%. Such patients are candidates for hypertonic saline. Notice that normal saline for such patients makes no sense. The concentration of sodium in normal saline is 154 mEq/L, an amount insufficient to efficiently raise the serum sodium concentration. The amount of sodium to be given may be estimated from the formula below:

Deficit = (Desired Na - Measured Na) x 0.6 Body Weight in Kg.

The amount of sodium given is based on the total body water, even though the sodium is distributed only in extracellular fluid. As the osmolarity of the extracellular fluid is increased, water is drawn from the intra- to the extracellular compartment. Thus, sufficient solute to raise the total body osmolarity is required. Be advised that it is not necessary to raise the serum sodium to normal. An increase to 120 mEq/L should be sufficient. The rate of correction should be gentle, so as not to damage the CNS further. If the body cannot tolerate the administration of sodium because of congestive heart failure, cirrhosis etc., dialysis may be performed.

Attention should always be given to correct the underlying disorder. Heart failure should be treated, renal failure dealt with, and hormonal deficiencies (e.g., Addison's disease), should be replaced. In the case of SIADH, it may be difficult or impossible to treat the underlying disturbance. In some instances, drugs which impair the kidney's ability to concentrate the urine, such as de-methyl-chlor-tetracycline, lithium salts, or the administration of urea are effective in making the patient with SIADH more comfortable.

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Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

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Category:	Sulfonamide	Sulfonamide
Brand Name:	Gantanol, Roche	Thiosulfil, Ayerst
Generic Name:	Sulfamethoxazole	Sulfamethizole
Dosage Forms:	Tablets, Suspension	Tablets
	AZATHIOPRINE	**AZULFIDINE**
Category:	Immunosuppressive	Sulfonamide
Brand Name:	Imuran, BW	Azulfidine, Pharmacia
Generic Name:	Azathioprine	Sulfasalazine
Dosage Forms:	Tablets, Injection	Tablets


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A Surgical Approach to Infected Descending Thoracic Aorta Grafts.

Case Report and Review of the Literature

JOHN W. FEHRENBACHER, M.D.
HAROLD G. HALBROOK, M.D.
GILBERT HEROD, M.D.
Indianapolis

Abstract

Infection in a descending thoracic aortic graft is a rare complication of vascular surgery. Establishing adequate blood flow to the abdominal viscera and lower extremities, while avoiding an infected left thorax, may be very difficult. We feel the Ascending Aorta-Abdominal Aorta bypass graft (AA-AA bypass) is the solution to this problem.

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INFECTION OF descending thoracic aorta grafts is rare. Rittenhouse[1] *et al.* reported one case. This serious problem and our surgical approach is presented.

Case Report

A 29-year-old man was involved in a motor vehicle accident Dec. 22, 1979. Initial evaluation revealed a widened mediastinum, multiple left rib fractures, and a comminuted left ankle fracture. An aortogram revealed a torn aorta, distal to the ligamentum arteriosus.

Replacement of the ruptured descending thoracic aorta with a 22 mm woven Dacron® graft was accomplished through the left posterior lateral thorax. Postoperative hemorrhage from the left chest required emergency re-exploration. Bleeding at the proximal amastomosis of the graft was controlled but resulted in narrowing of the thoracic aorta. A gradient of 80 mm Hg was measured across the narrowing. To improve flow, a 10 mm graft was anastomosed between the left subclavian and distal descending thoracic aorta (*Figure 1*). The gradient was reduced to 40 mm Hg after this graft was placed.

On the first postoperative day, the patient's blood pressure was 210/110 and a Nitroprusside drip was started. The serum creatinine was 3.6, and a gradient of 40 mm Hg was present between his right arm and right leg. The hypertension became progressively worse during the next six days, requiring a total of five antihypertensive drugs by the eighth postoperative day. Also, on the fifth postoperative day a persistently elevated temperature made us suspicious of an infected graft. After appropriate cultures were obtained, broad antibiotic coverage was instituted.

On the ninth postoperative day, the patient was returned to the operating room for surgery because of uncontrollable hypertension and the probability of a graft infection.

A mediansternotomy incision was extended to a midline abdominal incision, taking great care to avoid the left hemi-thorax in case this body cavity was infected. We elected to bypass the descending aorta, using a 20 mm woven graft from the ascending aorta to the infrarenal abdominal aorta (*Figure 2*). The graft was brought around the right atrium, through the diaphragm, anterior and to the right of the esophageal hiatus. The graft was positioned posterior to the left lobe of the liver, and entered the lesser sac through the gastro-hepatic ligament. The graft crossed anterior to the pancreas and through the transverse mesocolom just left of the ligament of Treitz. The graft was wrapped with omentum in the retrogastric area.

Postoperatively, the patient became normotensive without the use of antihypertensives; however, he continued a febrile course. Further investigation of the etiology of the fever was carried out. A culture of the left pleural fluid and blood cultures both grew out Group D Streptococcus and it was assumed that the original aortic grafts were infected.

On Jan. 9, 1980 the left thoracotomy incision was reopened, and both grafts were surrounded with purulent debris.

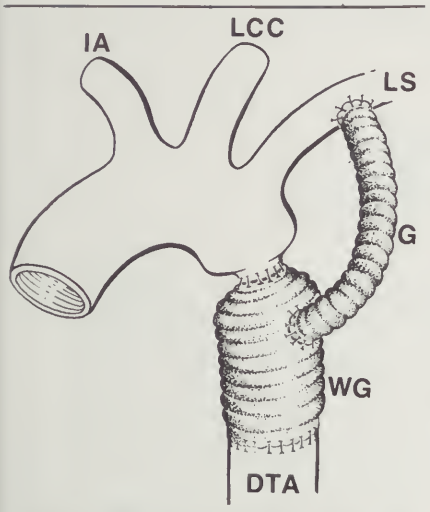


FIGURE 1: Narrowing of aorta with bypass.

After removing both grafts, the proximal and distal descending thoracic aorta was over sewn. Antibiotic therapy was continued, and the fever gradually subsided over the next several days.

The patient was last seen for follow-up at the end of two years. He is normotensive, with normal renal function, and no evidence of infection.

Discussion

The dreaded complication of an infected descending thoracic aortic graft poses a challenge to the surgeon. Unlike an infected abdominal aortic graft, where an axillary-femoral (aortic femoral) bypass can restore distal flow, this is not sufficient for a thoracic aorta bypass. Because of the left thoracotomy incision, only a unilateral right axillary femoral bypass could be safely performed. We feel a unilateral axillary femoral bypass would not maintain adequate flow. We had at least the equivalent of a 10-12 mm bypass, and our patient had uncontrollable hypertension and increasing renal insufficiency.

Another alternative would be to replace the infected graft with homograft. This approach was used by Rittenhouse[1] as a substitute for an infected synthetic graft. The long-term results of this graft material are uncertain. However, after 30 months follow-up of this patient, no problems have been encountered.

The feasibility of using a synthetic graft depends upon finding a route that can accommodate a large enough graft, separate from the infected area. We felt the AA-AA graft, first described by Schumacker and King,[2] was a good solution. The first successful use of this bypass was reported by Siderys, *et al.*[3] Other reports[4] have shown this graft to be an effective means for bypassing the thoracic aorta.

The use of the AA-AA graft in the management of infected descending thoracic aorta grafts has not been previously described. The technique for placement of the graft has been described by Cooley[4] and was used in our patient. We covered the retrogastric portion of the graft with omentum to provide protection against possible fistula formation. This complication, a surgeon's nightmare, has not been described with this graft but it has occurred with other types of vascular grafts, adjacent to the stomach.[5]

We feel the Ascending Aorta-Abdominal Aorta bypass graft provides an acceptable approach to this difficult problem.

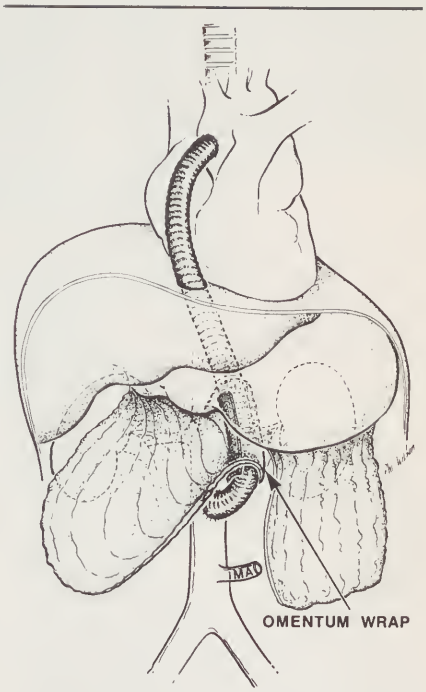


FIGURE 2: Schematic representation of route of AA-AA graft.

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Save A Little Life

The Allen County Fort Wayne Medical Society, with a strong commitment to quality medical care and a profound belief in the value of information, has established **Save a Little Life**—a cooperative promotional effort aimed at informing women of childbearing age in northeastern Indiana about the critical need for good prenatal care and, specifically, the warning signs of potential problems for which they should seek prompt medical attention.

This public service campaign includes television and radio spots (available from the society), seminars, workshops and printed information, all reinforced with an aggressive outdoor billboard campaign.

It is the hope and the belief of the Allen County Fort Wayne Medical Society that the educational approach of the **Save A Little Life** campaign will assist potential "high risk" mothers in receiving adequate medical care, nutritional information, and childbirth preparation.

The **Save A Little Life** campaign began in June 1983 with seminars and workshops running throughout the month in various locations.

The following facts and observations form the epidemiological base for the public education campaign:

- The Food Research and Action Center, Washington, D.C., has reported a significant increase in infant deaths for 1982 in certain regions of the United States.
- Sixty-six women of every thousand of childbearing age will become pregnant each year in Indiana.



- Between eight and nine women die each year in Indiana as a direct or indirect result of pregnancy.
- Twenty women of every hundred who do become pregnant can be classified as "high risk"—meaning that the mother-infant pair will be in a state of increased jeopardy sometime during pregnancy, labor or delivery.
- Low birthweight infants (under 5 lbs. 8 oz.) account for 60% of all infant deaths in northeastern Indiana.
- Low birthweight is the number one reason for admission to an intensive care facility in northeastern Indiana.
- Pregnant women under 17 or over 35 have increased risk of infant low birthweight and an increased infant mortality.
- National statistics indicate that teenage mothers are twice as likely to have low birthweight infants as the overall population.
- Eight of every hundred infants born to women over 35 in northeastern Indiana will be low birthweight.
- Approximately 65 infants in Allen County in 1983 will be stillborn or die before the age of one month.
- In 1982, approximately 16 of every hundred infants born in a primary care facility, requiring transport to an intensive care facility, died. In 1981, approximately 11 of every hundred infants in this category died.
- Three of every hundred infants born at a facility having an intensive care nursery, requiring admission to that nursery, died.
- Half of all marriages involving infants requiring high level intensive care end in divorce or separation within one year.
- National studies show that if women who received no prenatal care received some care, there would be a 4% reduction in infant deaths.
- National studies show that if women initiating care late in pregnancy received care during the first three months of that pregnancy, there would be a 3% reduction in infant deaths.

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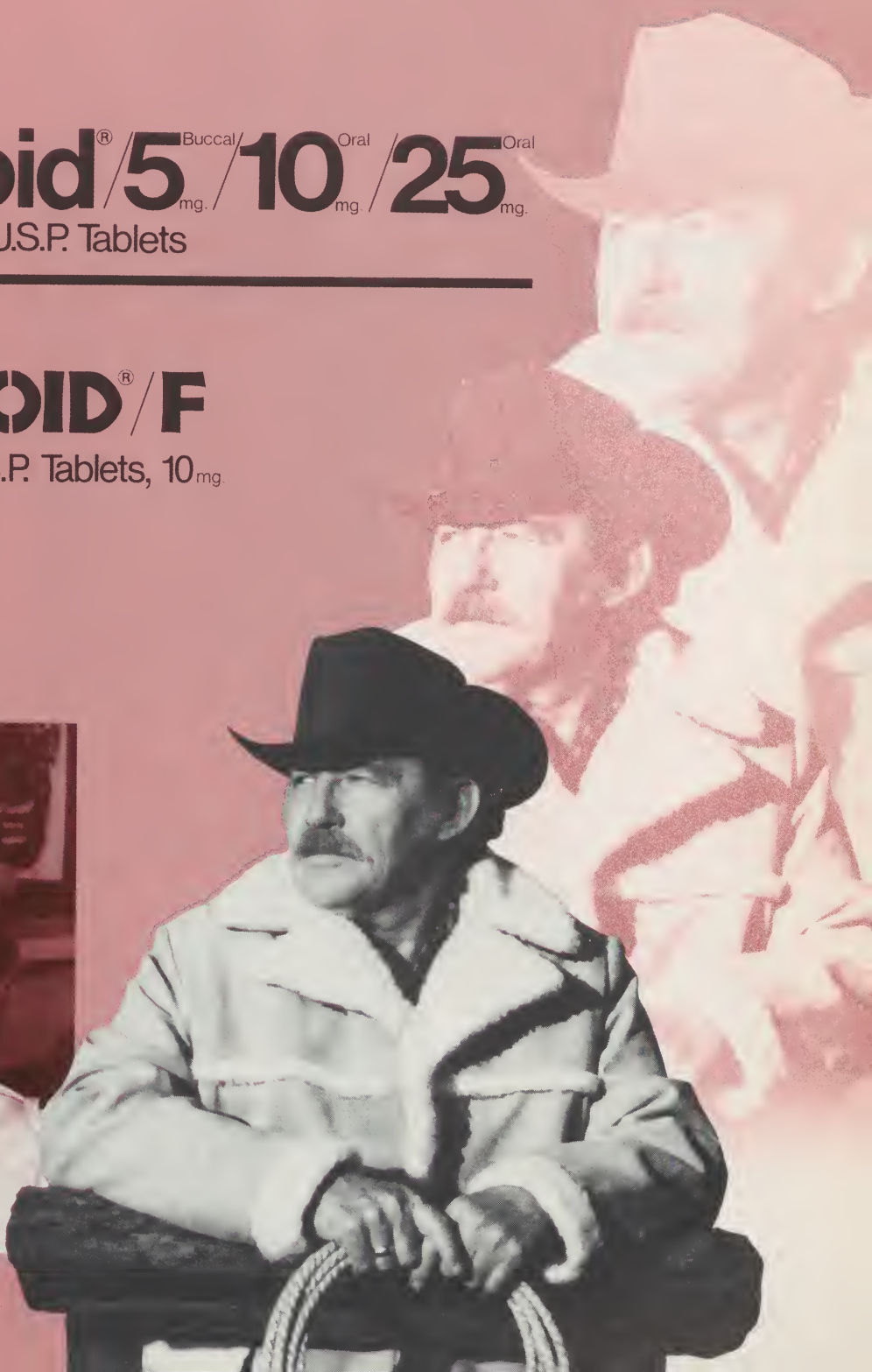
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Diagnosis Related Groups: The Changes Will Not Be Easy

Commentary

Prior Planning, Diplomacy and Cool-headed Consideration Will Be Needed . . .

UNDER THE DRG SYSTEM hospital administrations and medical practice in hospitals must undergo many changes. Both must cooperate in a lot of compromises. And both will have to adopt many accommodations to conditions never before encountered, in order to maintain high quality and still preserve a financially competent institution.

It will be difficult but not impossible.

Despite the fact that DRG reimbursement formulas are to be introduced gradually over a few years, the process will require the utmost in prior planning, in inter-personal negotiation and diplomacy, and in cool-headed consideration.

Cost accounting will be a very important factor in almost all administrative decisions, and the accounting must be accurate and on a very detailed scale. Hospitals will have to know the cost of every activity that can be valued separately.

Hospital clinical activities differ as to financial returns, some gainers, some losers. A non-profit hospital which breaks even does so because of a mix of gainers and losers. Limitation of income by the DRG system will accentuate the losers and decrease the number of gainers. Each hospital will be obliged to eliminate enough losers to maintain financial equilibrium.

Hospital cost is influenced mainly by length of stay and by the use of supplies, and services such as x-ray, laboratory and pharmacy. These factors are under the influence of physicians. However, the DRG system penalizes the hospital when DRG income fails to cover expenses. This situation must be solved by careful planning and with the cooperation of medical staff and hospital management.

Usually a clinical hospital activity that tends to be on the short side does so because it has a low volume of work. One method of avoiding this disadvantage will be to select one of a number of hospitals in a region to care for all the particular cases in question. The larger service in this one hospital may then be large enough and/or can be made efficient enough to become a gainer.

The clinical mix in each hospital will probably be managed in much the same manner as an investment portfolio—keep the gainers, encourage the gainers, improve the performance of losers or eliminate the losers.

In the future the composition of the medical staff as to the mix of various specialties will be found to conform to whatever clinical mix of activities the hospital has adopted. The profile of clinical specialists on the staff will match the profile of clinical hospital activities. Admissions to the medical staff will greatly depend on how the applicant's specialty fits the profile.

Medical staff utilization committees will be concerned with physician utilization patterns especially in regard to use of ancillary services. URCs have, in the past, tended to monitor length of stays as their main function. This will be continued but will become a minor item as compared to advisories on the appropriate use of ancillary services.

Adjustment for teaching costs will be difficult. The average U.S. hospital has about 200 beds. The staff of this size hospital will not be large or expert enough

to handle the appeals and petitions for exceptions. The larger hospitals will find it necessary to fine-tune or enlarge their accounting departments in order to provide the financial data essential for survival.

The medical record room will become the nerve center for the financial management of the facility. The importance of daily up-to-date entries by physicians will be stressed. Coding must reflect the case mix. Each record must be practically complete from a clinical standpoint on the day of dismissal.

Hospitals must adjust to the fact that physicians will do more and more clinical laboratory tests in their offices. Patients will be diagnosed and prepared for operation to the greatest extent possible prior to admission. Operations will be performed the day after admission in most cases. Dismissal at the earliest time possible will be customary.

Some hospitals may discontinue the admission of Medicare patients. Cost shifting now raises the rates for private patients. Further shifting of costs is unthinkable.

In areas without population growth the increasing percentage of individuals over 65 years of age will increase the demand for Medicare services and further burden the rate structure for private patients.

Cost consciousness will be the ruling emotion in hospitals under the DRG system. Hospital staffs will be busy making the cost of everything in the hospital known to the physicians.

An aging hospital population creates a reimbursement inequity because of nursing costs. Older patients absorb more nursing care than the younger ones. A factor of 8.5% was initially added as a nursing salary differential to cover Medicare patients. This factor was later reduced to 5%. In 1982 the Comptroller General issued a report which expressed doubt as to the need for any differential, and it was completely eliminated for services rendered on or after Oct. 1, 1982.

A large private hospital in Indianapolis studied the problem in 1981. A careful tally of bedside nursing time showed that the plus-65 group received 33% to 36% more bedside care than did their juniors.

A good general rule in geriatrics is that the older the patient is, the more chronic diseases are present, the more complications are encountered, the more medicines are required, the more time is spent monitoring the effect of treatments, and consequently, more nursing attention is necessary.

TEFRA presents one more change in Medicare. Physicians treating patients in hospital outpatient settings have been able to bill Medicare 80% of their reasonable charge just as physicians working in private offices. Hospitals are reimbursed by Medicare for their outpatient overhead in hospital settings. Physicians in private settings assume those overhead expenses personally. Medicare believes that it pays for the same overhead twice in the case of hospital-based OP physician services. A physician's charges in hospital settings are, therefore, going to be reduced to 60% of the reasonable charges for those services that could be rendered in the physician's office.

The DRG effect on hospital finances is to be introduced gradually. This is well and good. However, gradualism will not smooth the changeover very much. Physicians who care for Medicare patients in hospitals will be involved in a complicated scheme which will endanger high quality medical care. At the same time physicians will be impressed with the necessity of providing the best of care without producing a shortfall in hospital income. It will take a lot of straight thinking, hard work, and selflessness on the part of all concerned, both hospital staff and physicians. No one is going to have an easy time.

Cost Consciousness Will Be the Ruling Emotion in Hospitals Under the DRG System . . .

The Sound of Silence Is Deafening

1983 Hearing Fair

FIVE HUNDRED THOUSAND residents of Indiana have a hearing loss. Nevertheless, a large number of them, together with a crowd of citizens interested in hearing problems and their remedies, heard about The Hearing Fair and attended, or should it be said, over-attended the Hearing Fair of 1983.

This was the second such public education event in Indianapolis. A similar Hearing Fair was held in 1981 with an attendance of over 50,000.

Sponsorship was by the Wright Institute of Otology, Community Hospital of Indianapolis and the National Hearing Association. Mr. Otto N. Frenzel III was the honorary chairman. Two days, Saturday and Sunday, April 30 and May 1, were devoted to the event, which took place in Castleton Square Shopping Mall.

The purpose was to provide information and increase awareness regarding hearing loss, communication problems and related disorders. The causes, means of diagnosis, prevention, medical treatment and types of rehabilitation and the community support available are all-important items which were dealt with.



Clowns distributed free "The Sound of Silence is Deafening" balloons to children.

About one in ten people have some type or degree of hearing diminution. Almost all of them can be helped medically, surgically, or by hearing aids or hearing-speech-language rehabilitation.

The Wright Institute of Otology was formed in 1966 for the purpose of ear (hearing) research and education.

More than 2,000 hearing-screening tests were performed. Nearly 30 exhibitors from central Indiana were in attendance, answering questions and demonstrating devices and aids of all varieties.

The interest in hearing tests was intense. The multiple facilities for testing were utilized to the limit; more tests could have been done if the testing instruments had been more numerous.

The 1981 Fair received the prestigious CASPER Award which was bestowed by the Community Service Council of Indianapolis. It was the first such fair to be held in the United States and received many lauditory comments concerning its public education achievements. It is now the prototype for similar activities in other cities.



The Pride of Indy Men's Chorus entertained while one of their members interpreted for the hearing impaired.



The Indiana School for the Deaf was among various exhibitors.

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Yet another benefit Valium affords is flexibility. Available in 2-mg, 5-mg and 10-mg scored tablets, Valium enables you to titrate dosage to individual patient needs. For the geriatric patient, a starting dosage of 2 to 2½ mg once or twice a day is recommended. And, for patients who forget or skip medication, you can prescribe Valrelease™ (diazepam/Roche) 15-mg slow-release capsules, knowing that Valrelease will assure all the benefits of Valium 5 mg *t.i.d.* with the convenience of once-a-day dosage.

Discontinuation of Valium (or Valrelease) is typically as smooth as its start in short-term therapy. However, Valium and Valrelease should be discontinued gradually after more extended treatment. As you diminish dosage, the built-in tapering action of Valium and Valrelease will help avoid rapidly recurring anxiety symptoms and symptoms of withdrawal, and will help ease the patient's transition to independent coping when therapeutic goals have been achieved.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome. *Oral forms* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures; tetanus; anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion.

The effectiveness of diazepam in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Tablets or capsules in children under 6 months of age; known hypersensitivity; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following ahrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

> *Usage in Pregnancy:* **Use of minor tranquilizers during first trimester should almost always be avoided because their use is rarely a matter of urgency and because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral forms adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE: *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins, i.e., dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Injectable Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest; concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea; have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least 1/3, administer in small increments. Should not he administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs.

Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of diazepam, *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed and tolerated).

The clearance of diazepam and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

INJECTABLE: Although promptly controlled, seizures may return; readminister if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash. slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, observed in patients during and after diazepam therapy are of no known significance.

INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia. In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Dosage: Individualize for maximum beneficial effect.

ORAL. *Adults:* Anxiety disorders, relief of symptoms of anxiety—Valium (diazepam/Roche) tablets, 2 to 10 mg b.i.d. to q.i.d.; or 1 or 2 Valrelease capsules (15 to 30 mg) daily. Acute alcohol withdrawal—tablets, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; or 2 capsules (30 mg) the first 24 hours, then 1 capsule (15 mg) daily as needed. Adjunctively in skeletal muscle spasm—tablets, 2 to 10 mg t.i.d. or q.i.d.; or 1 or 2 capsules (15 to 30 mg) once daily. Adjunctively in convulsive disorders—tablets, 2 to 10 mg b.i.d. to q.i.d.; or 1 or 2 capsules (15 to 30 mg) once daily.

Geriatric or debilitated patients: Tablets—2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated (see Precautions). Capsules—1 capsule (15 mg) daily when 5 mg oral Valium has been determined as the optimal daily dose.

Children: Tablets—1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use in children under 6 months). Capsules—1 capsule (15 mg) daily when 5 mg oral Valium has heen determined as the optimal daily dose (not for use in children under 6 months).

INJECTABLE: Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)

For dosages in infants and children see below; have resuscitative facilities available.

I.M. use: by deep injection into the muscle.

I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.

Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcohol withdrawal, 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses); in children *administer I.V. slowly*; for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary; in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available.

Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary, keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. Infants (over 30 days) and children (under 5 years), 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). Children 5 years plus, 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred); repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.

In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure; if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M.; in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectahle form, patient may be placed on oral form if further treatment is required.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure; employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension. Dialysis is of limited value.

How Supplied:

ORAL. Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100 and 500; Prescription Paks of 50, available in trays of 10; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25 and in boxes containing 10 strips of 10.

Valrelease (diazepam/Roche) slow-release capsules—15 mg (yellow and blue), bottles of 100; Prescription Paks of 30.

INJECTABLE: Ampuls, 2 ml, boxes of 10; Vials, 10 ml, boxes of 1; Tel-E-Ject® (disposable syringes), 2 ml, boxes of 10. Each ml contains 5 mg diazepam, compounded with 40% propylene glycol, 10% ethyl alcohol, 5% sodium benzoate and benzoic acid as buffers, and 1.5% benzyl alcohol as preservative.

ROCHE®

EDITORIALS

20th Century Pioneers

Seventy-five years of graduate medical education is covered in a commemorative 90-page publication from the Methodist Hospital of Indiana in Indianapolis. Rosters of interns, residents and fellows, although admittedly not complete for the first part of the 75 years, are surprisingly alive with names of the clinical pioneers early in the 20th century.

On April 29, 1908 the hospital received its first patients. Two interns were installed with salaries of $50 annually and three duck suits each, said suits not to cost more than $4.

In 1909 the X-ray Department was founded by Dr. Albert M. Cole, one of the radiologic greats and later to become a martyr because of radiation effects. Dr. Ray Beeler taught the first class in 1922, a general course in radiologic diagnosis.

The educational program developed slowly and surely. A medical library was set up in 1925. Also, rules were adopted to govern the interns and the house staff. In 1922 the first diabetic patients in Indiana received the newly manufactured insulin.

In 1946 it was voted to accept applications from women medical students but acceptances were limited to two. 1949 saw the establishment of a Residency in General Practice. A few years later an integrated residency in orthopedic surgery was formed with rotation through the programs of St. Vincent, City and University hospitals.

1951 marked the first participation in the intern matching program, which was forerunner of the present plan. The next year Dr. L. A. Ensminger served as education director.

Residency programs in pediatrics and in obstetrics/gynecology developed in 1954-55. The Research Division was inaugurated in 1963 with Dr. Frank P. Lloyd as director.

1967 was the year a full-time residency director, Dr. Gabriel Rosenberg, was installed. In 1969 Dr. Ronald Blankenbaker became the first director of the Family Practice Residency.

The Emergency Medicine Residency Program blossomed out in 1976 with Dr. Frank Black as director. And soon thereafter came 1982, the 75th year of educational excellence and progress.

The book is recommended for those in a mood for reminiscence. It encompasses all known house staff members from Abbott to Zook, arranged alphabetically and by years of service. Chief residents are listed in the early days at the rate of one per year. Some years are blank—was this the year there was no chief or was it a famous M.D. whose name has not yet been recalled?

Gaps in the record are inevitable. All Methodist alumni are urged to scan the book and add to its pages of honors and acknowledgments of service to bring to completion its documentation of 75 years of basic and clinical medical education.

Getting Back to Work

Treatment of injury and sickness affecting workers in industry and business is a big and important project.

Big because business and industry is big. And even with all possible reduction in workplace injuries and with fewer and fewer illnesses the number of people who must recuperate before they return to work is sizable.

Important because people are innately happy when working and are nervous when not. Convalescing workers at home are grumpy and restless and in the way. True, a man or woman who returns to work in a short time costs the employer less in unproductive compensation pay and in disruptions at the factory due to the absent employee, but this is not the only, or even the biggest reason that prompt return to work is so important.



Can't you wait 'til the half?

Getting back to work, possibly to a lighter task, is the best part of the whole procedure. Out from under-foot at home, back with the gang, finding that the shop or office has missed him or her and views him or her as an essential part of the work, realizing that the "old grind" isn't so bad after all—all these sensations bond the worker to the job. And, the sooner the return to work the sooner and better is the recovery, both physical and mental.

The Wausau Insurance Companies, pioneers of industrial compensation insurance, is famous for making educational films on the subject.

Their latest, a 30-minute color film titled "The Workers Comp Connection," was produced in cooperation with the American Medical Association. Part of the film was shot at Columbus, Indiana, during a meeting of the business/medical health care coalition which functions so well in Columbus.

The film illustrates very effectively how team work among physicians, nurses, technicians, and all other health care people will serve to involve the disabled worker in a process of hastening recovery and furthering rehabilitation. Visits by the treating physician(s) to the workplace are recommended to enable earliest work return possible in each case.

"The Workers Comp Connection" is suitable for medical society meetings and physician seminars.

Physicians may obtain a free loan of the film by writing the Wausau Insurance Companies, Communications Services, 2000 Westwood Drive, Wausau, Wisc. 54401 or by phoning (715) 842-6115.

Head Lice Film

An educational 14-minute color/sound film for physicians, educators, parents and school-age children on the subject of head lice has been produced. Rental price is $20 for two weeks use. Purchase price is $175. The title is "A-200 Pyrinate Feature Film."

Write to Campus Film Distributors Corp, 24 Depot Square, Tuckahoe, N.Y. 10707, or call (914) 961-1900. Send check or request billing. Head lice are rampant because most people won't even talk about them. Public education is the answer.

EDITORIALS

Pfizer's Healthcare Series

In response to a continuing and increasing public interest in physical fitness, medical care and medical costs, Pfizer Pharmaceuticals is launching a public education campaign to supply just such information.

This occurs during a time when newspapers, radio, television and magazines have already flooded the place with health facts and medical information.

Pfizer states that there are now five million diabetics in the United States who are unaware of their disease. The same with 15 million hypertensives. Further, a general survey last year showed that most of the people surveyed did not know the symptoms of angina. This, despite the four million Americans who suffer with angina.

Drug information will form a part of the program, but not the main part. The big push will be on "basic information to help individuals maintain healthy lives, to be more aware of health issues and to improve their general level of health knowledge."

A variety of media will be used to reach the healthy, the "undiagnosed ill" and the diagnosed patient.

Educational messages will appear on television on prime time to cover the risk factors and warning signs of a specific major disease. The concept of early diagnosis and medical treatment will be emphasized.

Since August 1982 Pfizer has used editorial-type messages in newspapers and other publications. These are also advancing the advice of early diagnosis and prompt treatment.

For the already-diagnosed patient Pfizer produces Patient Information Publications (PIPs), which are furnished to physicians for distribution to patients.

Pfizer also has healthcare periodical magazines such as "America's Health" and "The Good Drugs Do" which outline basic aspects of diseases.

The Healthcare Series has covered mostly the cardiovascular diseases and diabetes. More than 50,000 letters have been received containing favorable comments or requests for permission to reproduce the health messages in company employee publications.

As a result of the favorable response and the informational success of this fine public educational effort, the future will consist of more of the same and also the same type of program for other disease categories.

Television Commercials

Gleanings From Retirement

I care little for television commercials, but there is one which suits me very well and seems symbolic of the human comedy as seen from a state of retirement. It is the one in which a large and handsome bull makes his way through a china shop, unscathed and without harming anything; or he may successfully explore a maze; but best of all he expands his explorations into a beautiful flower.

All this reminds me of Ferdinand the Bull who could not be persuaded into any form of activity but "just sat quietly and smelled the flowers." That is retirement de luxe, believe me, in spite of all the do-gooders who try to persuade us oldsters we are still capable of cleaning Augean stables. We ancients had best let someone younger divert the course of rivers, while we sit quietly and smell the flowers. Perhaps, if we remain unobtrusive, though visible, Hercules might just, occasionally, ask our advice—and God forbid he does not wait until he is hopelessly mired down.—**A. W. Cavins, M.D., Terre Haute.**

From Here to Indemnity

Looking Back

A quarter of a century ago, the most common medical care insurance was "indemnity." This type insurance paid a preset amount for each medical or surgical procedure or hospital day to the patient or the physician. The amount paid was predetermined by the insurance company, perhaps with some physician input, and was clearly printed in the policy and in the policy description.

Physician and patient could easily determine how much the policy would pay for any procedure. Some physicians would charge only "what the insurance will pay," others would charge more, and most would charge variably according to the patient's affluence and influence.

The comparable hospital insurance paid the patient or the hospital a preset amount per hospital day.

Both patients and physicians were dissatisfied with incomplete recompensation and yearned for "complete coverage."

Now, after several decades of complete coverage, we physicians are told that medical care costs are out of control and unaffordable. We are told that medical care costs do not obey the usual "rules of the market place"—whatever the rules are! We are not told what rules, if any, medical costs *do* follow.

And yet we physicians are told we must "do something" about medical care costs. What can we do?

Most of us would prefer not to ration medical care. Most of us feel we cannot control hospital costs. Most of us feel we individually have little impact on medical care expectations of the public.

The only hope seems to lie in tying financial incentives to diminished utilization of medical care by each individual patient. Deductibles, co-insurance and return to indemnity type insurance have been mentioned as remedies for escalating medical care costs.

How do we get from here to indemnity?

Our government and our employers must do several things for patients and employees (who are also customers and tax payers!) grown accustomed to full coverage:

1. Education for the eventual benefits of partial coverage and shared risk.
2. Tax and income disincentives toward full coverage.
3. Tax and income incentives toward partial coverage.
4. Sliding scale coverage for costs according to income.
5. Catastrophic insurance emphasis.
6. Ruling that employers must offer indemnity (or other cost sharing) type hospital and medical insurance for employee selection.
7. Etc.

And physicians will surely follow this lead by offering suitable fee adjustments according to each patient's coverage and income.—**Alvin J. Haley, M.D., Indianapolis. Reprinted with permission from *Front Line Physician* July/August 1982.**

Don't Let the Spark Go Out

Guest Editorial

A famous basketball coach, whose name escapes me for the moment, once said "I don't make men into basketball players. I make basketball players into men." This comment got me to thinking—In what direction do we go when becoming doctors? Do we start with "doctors" and teach them the art of healing? Or do we begin with plain ordinary people who have a spark of compassion and caring and over a lifetime this amber becomes its own quest for fire to be turned into an inferno?

But who has the spark? How do you find it? Is it there in all of us just waiting to be given the breath of life so it can start to glow?

Another "coach" whose name does not escape me was Sir William Osler. He said, "The art in caring for the patient is caring for the patient."When I first heard this medical aphorism I thought the word caring meant "doing for" the patient. (My spark must have gotten a late start.)

In those days of the early 1900's when the science of medicine was so short and the art so broad, all they had to offer was caring. Nowdays, you can spend $1,000 in tests before you visit the bedside of the patient in the morning.

George Allen of the new Chicago Blitzs (and I don't mean to make this coach day) put it so well to his players. "Men, I don't want perfection . . . just excellence." And as doctors we can hope to do no less. The patient would like a good result, but would also appreciate a chance to talk and to understand. It is almost becoming a medical maxim that the less disease the patient has the more time he needs to be reassured. This is where that spark really begins to glow.

Well, what am I trying to say in all the above ramblings? Simply that there was (and is) something inside us that made us want to be doctors. The same amount of work in other fields of endeavor would bring us far more success and riches. But where else is there that chance for caring? Where else is there that chance for altruism? Where else is there that chance for teaching and being taught?

It matters not whether the fee we receive is the icing or the cake. What does count is that we realize how fortunate we are to be physicians and to be allowed to make a contribution to society.—**Milton F. Miller, M.D. Reprinted with permission, the *Journal of the Kentucky Medical Association*, June 1983.**

Utility Bills

Guest Editorial

Of course, our utility bills are too high; of course, so are all our other costs of living. Off hand, I can see two main reasons for the high utility bills.

In our natural gas and oil bills, we are paying for the "holy" war declared by our ex-President Carter such a few short years ago. Wars are always very expensive. General Carter, leading the Ward Healers of Congress (whom I prefer to call the Pirates of the Potomac) into battle, mounted his horse backward, and led his Pirates off in the wrong direction. Instead of thinking of who could help us out of our imaginary energy crisis, he and the Pirates declared war on our friends—our domestic energy producers. The oil producers were hit with "windfall profits" tax passed through to the oil users. The natural gas producers were hit with "regulated" prices and 26 different categories of natural gas—each with a different regulated price. How is that for a system guaranteed to add billions of dollars worth of bureacracy, both to our gas bills, and to our income taxes!

The next big blow, and it is a continuing blow, to our pocketbooks in this energy and utility business is being administered to us by the anti-nuclear and environmental freaks. Electric power could be generated by nuclear reactors costing ¾ of a billion dollars each. Instead, with law suits costing the utility companies hundreds of millions of dollars to defend, and adding years to the construction times of reactors, the cost of such installations increases EXPONENTIALLY into multiple billions of dollars. The only source of money to pay these extra billions is in the price of kilowatt hours of the electricity we use. Hence, higher electric bills.

Now, our electricity generating companies are being threatened with the second part of a "double whammy" called *acid rain*. Acid rain is allegedly being caused by burning coal to generate electricity. It is an allegation, and not a proven fact, but no matter: "Hang them first, and give them a fair trial later" seems to be the battle cry of the environmental freaks.

I happen to remember the days when most houses were heated with coal. Also, the railroad industry sent hundreds of coal-powered trains daily over the tracks—each train spewing loads of black smoke into the atmosphere. The steel industry, exemplified by Gary and Pittsburgh, put a pall of coal smoke over their towns. Much more coal pollution was put into the atmosphere then than now. Where was the "acid rain" in those prehistoric days?

Further, have none of the environmental freaks stopped to realize that Mount St. Helens or some of the other active volcanoes in our world give an unexpected burp or two, and in a period of 24 hours put more pollution into the atmosphere than mankind has done in the several million years since he first built a cooking fire?

I don't presume to know the answers to "acid rain" or to some of the other problems of our society, but I don't see any good reasons to follow the leads of unthinking pseudo-knights who mount their horses facing the manure ends of their steeds and riding off in random directions. It seems that whatever their slogan, it is an emotionally poorly thought out idea that costs all of us increasing amounts of money in our monthly utility bills. What a blessing it would be to our bank rolls if their steeds and riders tumbled into the crater of Mt. St. Helens!—**L. A. Arata, M.D., Shelbyville, Ind.**

Salt Is the Culprit

High blood pressure is one of the most common diseases—and no wonder! A scientific analysis of sodium intake by students at the University of Illinois found some male students with daily intakes of 13,956 mgs. Coeds in the study gobbled up 9,374 mg. daily. More than 3,000 daily is considered unsafe. Many students who never picked up a salt shaker were on the high side of safety—pretzels, popcorn and potatoe chips were the culprits. Almost all hypertension is preventable. All you have to do to avoid it is LIMIT SALT INTAKE. The June *Journal of the American Dietetic Association* reports the research.

The Financial Health of Medicare

A Message from the Executive Director



DONALD F. FOY
Executive Director
Indiana State Medical Association

SINCE 1970, MEDICARE outlays have been increasing at an average annual rate of 17.7%, and in fiscal year 1982 they were over $50 billion. Current projections see the Hospital Insurance Trust Fund as depleted by 1987 or 1988 and running increasing deficits in the years following. It is also predicted that even if Congress unexpectedly approved all of the Reagan Administration's Medicare initiatives, the fund's bankruptcy would be delayed by only a year or two.

Continued solvency of the program through 1995 will require either outlay reductions that are much larger than any program options currently under discussion, or very substantial increases in revenues. The projected growth in hospital costs is attributable primarily to rising hospital costs and to a lesser extent, to the aging of the population.

This is a very serious problem to say the least. The National Advisory Council on Social Security chaired by our own Otis Bowen, M.D. is presently wrestling with this vexing problem. According to Dr. Bowen, most senior citizens regard Social Security and Medicare as sacrosanct—they do not want to have to pay any more nor do they want anything taken away from them. As a matter of fact, they want more in the way of benefits. Since there are some 30 million people over the age of 65 drawing benefits, 85% of whom vote regularly, the political realities are such that they are going to garner congressional attention.

We have a real dilemma on our hands. No one wants to take anything from senior citizens; but if certain changes are not made soon, the entire Medicare program will be in jeopardy. Everyone is going to have to realize that they will have to be part of the solutions if the program is to be saved. It is going to cost everyone more, and the recipients are going to have to settle for a little less—it's that simple. Our biggest challenge will be communicating these realities to the senior citizens.

Medicare's Current Structure

Medicare serves as the principal insurer of acute medical care expenditures for approximately 30 million elderly and disabled persons. The program is divided into two parts: Part A—Hospital Insurance (HI), which is dominated by short-stay hospital inpatient care; and Part B—Supplementary Medical Insurance (SMI), which covers physician services and other ambulatory care. The HI portion is supported almost entirely by part of the Social Security payroll tax. Part B, or SMI, on the other hand, is an optional insurance plan requiring a monthly premium (currently $12.20) that covers only about 25% of program costs. The remainder of SMI outlays are financed from general revenues.

Medicare reimburses hospitals and most other providers directly for the costs of covered services used by enrollees. In cases where physicians and other SMI providers decline to accept "assignment," the charges established as "reasonable" by Medicare, beneficiaries pay them directly and then seek reimbursement from Medicare.

Medicare does require its beneficiaries

to pay a portion of the costs of covered services. The HI portion, for instance, charges a first-day deductible amount for short-stay inpatient care plus coinsurance on days 61 through 150 of a hospital stay during one benefit period and on days 21 through 100 for stays in a skilled nursing facility (SNF). SMI also assesses an annual deductible amount of $75 and coinsurance of 20% of allowed charges on all covered services except home health care.

To focus more clearly on the Medicare financing problem, it is interesting to note that approximately 7% of Medicare enrollees account for 67% of all Medicare expenditures while 28% of Medicare dollars are spent for people who are in the last year of their lives. This concentration of care on relatively small numbers of patients has also been confirmed in private employer health benefit plans. Our health care system seems to have evolved toward providing very intensive care for a relatively small portion of our total population. Since the Medicare population represents about 11% of the total population and consumes nearly 30% of the nation's medical care, whatever is done in the name of controlling Medicare costs (prospective reimbursement through diagnostic related groups (DRG), for example) is bound to impact heavily on the so-called high utilizers of the medical care system, and rightly so. Consequently, the options available to the federal government in dealing with the Medicare problem can be reduced simply to two: rationing or taxing.

Examining Some Options

I. Introducing a Premium for HI

Although adoption of the DRG concept for hospital care will undoubtedly result in more shifting of costs to the private sector, it will make hospital costs more predictable for the federal government. With such predictability it would seem that inpatient care under Medicare (Part A) could lend itself to insurance coverage similar to the medical portion of Medicare (Part B), which currently requires beneficiaries to pay a premium of $12.20 per month. To take the great burden off the hospital trust fund, which we know is currently in serious financial trouble, it may be feasible to consider requiring benificiaries to also pay a premium for Part A coverage.

Under current law, those eligible for coverage under HI pay no premium even though the average benefits they receive are much greater than their contributions during their working years. Additional enrollee contributions could be obtained through imposition of a monthly HI premium of an appropriate amount to be determined. The premium amount should probably be proportionate to program costs since HI comprises 70% of total Medicare expenditures. For example, the premium for SMI, which accounts for 30% of Medicare outlays, is $12.20 per month. Nevertheless, if the federal government decided to impose a premium for only the same amount ($12.20 monthly) for HI, it would represent an infusion of about $366 million annually to the hospital trust fund. Like the SMI premium, greater cost sharing would thus be spread across all enrollees rather than concentrated on only those who face periods of hospitalization or institutional care.

Is this unreasonable or inconsistent with the philosophy of the Medicare program? We don't think so in view of the fact that the average family income for all non-institutionalized enrollees is over $21,000 per year, according to the Congressional Budget Office. Roughly 20% have annual incomes above $30,000. Moreover, current Medicare cost-sharing for non-institutionalized enrollees will average $457, or about 1.8% of income.

It is interesting to note that Medicare now accounts for 2.6% of the 6.7% of the Social Security payroll tax (FICA) paid by employees and employers. Also, last year Indiana had 800,000 Medicare beneficiaries who received $3.3 billion in benefits out of a total state population of 5.5 million.

II. Introducing Means-Testing

Another approach to cost-sharing would be to make receipt of benefits conditional upon income (or some other measure of economic resources), or to structure benefits differentially for persons at various levels of income. So far, Medicare benefits have not been means-tested. Such a change would represent a major philosophical shift for the program.

One of the primary concerns in evaluating means-testing as an option for Medicare is the question whether this program is to be viewed as a benefit or an insurance program. If it is purely a social insurance program, many would argue that benefits should be available equally to all eligible enrollees on the ground that coverage is generally limited to those who have paid into the Social Security system for many years (or on whose behalf someone has paid).

The structure of Medicare, however, implies that it may not be purely a social insurance program. Social Security taxes now place a contribution equal to 2.6% of taxable payroll in the Medicare trust fund, earmarked for HI benefits. These contributions have only been made since 1966, however, and payment of benefits to the aged and disabled far outstrip the actuarial value of their contributions into the system. Moreover, the level of contributions made is not tied directly to the amount of benefits received. Although each year new enrollees have a longer history of contributions, the rate of return on such payments is projected to remain very high. For example, an elderly couple each reaching age 65 in 1982, of whom one spouse had average covered earnings over the 1966 to 1982 period, would have paid in $2,200. The present value of their future lifetime benefits is projected to be $63,000—28.6 times the contribution, according to the Congressional Budget Office.

SMI has less claim to being social insurance, particularly for the elderly. It receives no payroll tax contributions, and any elderly person can participate regardless of Social Security eligibility. SMI premiums currently pay for only 25% of program costs, so it could be considered largely a benefit program.

The practical problems associated with implementing a viable structure for a means-test should not automatically preclude its serious consideration for Medicare.

III. Integrate HI and SMI into a Single Program

Because the basic problem with Medicare seems to be one of promises by government that can't all be fullfilled and in light of the questionable nature of Medicare's HI as a social insurance program, it would appear feasible to consider combining the HI and SMI (Parts A and B) into one integrated program. It should then be restructured as a true insurance program with actuarily determined premiums, coinsurance, deductibles and means-testing incorporated.

The federal government would contribute to the program based on its affordability and current resources. The government would extricate itself from the expensive business of direct administration and turn the program over to the private insurance industry completely. The system of means-testing to be incorporated would rely on federal income tax returns in order to determine equitable premiums, deductibles and coinsurance, along with strengthened catastrophic coverage. This should go a long way toward controlling the burgeoning costs of the program without jeopardizing existing benefits.

IV. Convert Medicare to a State Program

Since Medicare and Medicaid comprise more than 80% of the federal government's expenditures for health, it is readily understandable why so many of the Administration's cost-saving proposals are aimed at these two programs—especially Medicare. Unfortunately, these proposals represent a piecemeal approach to a problem that may require more drastic action. Therefore, we would recommend that the federal government consider turning the Medicare program entirely over to the states to administer through the private insurance industry. One alternative might permit each state some latitude in designing its own health insurance program for the aged (those over 65) within broad federal guidelines and perhaps retaining that portion of federal taxes that are now being transferred to Washington D.C. to support the Medicare program.

Another slight variation would be to allow each state to purchase health insurance policies for its Medicare beneficiaries through the private insurance industry. The premiums would be paid for by the federal government with the "Fed" establishing standardized coverage based on a single level of care with no frills. The states would negotiate contracts and premiums with local insurers and monitor experience.

V. Integrating Medicare and Medicaid

Medicaid, which is already a state-administered program with funding based on a federal-state matching formula and federal guidelines, should be similarly structured. However, better yet, why couldn't the two programs be merged and one standard level of coverage be provided for both the aged and the needy, using the private insurance industry? The adminstrative savings should be substantial. We see little justification for the poor enjoying a higher level of care than the aged, which is presently the case.

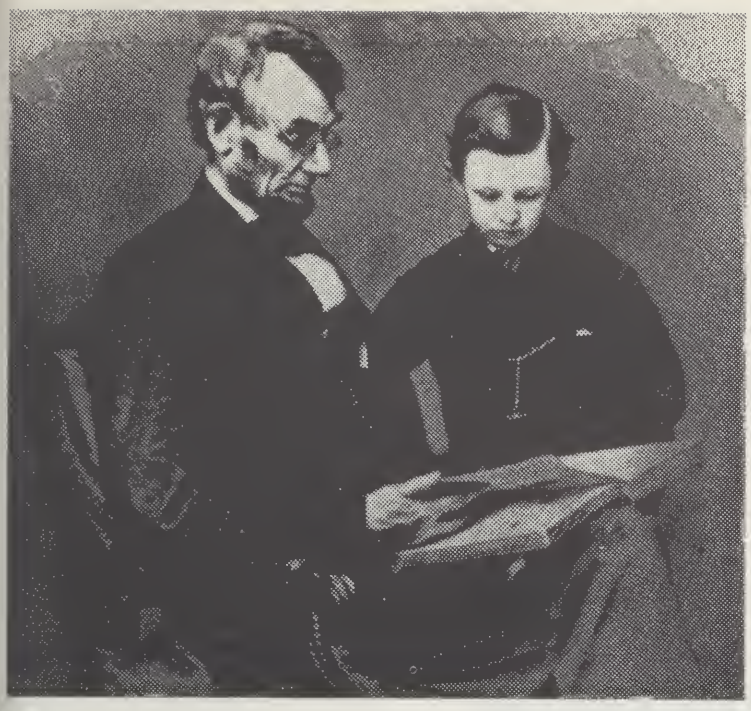
VI. Promote Concept of "Living Will"

One of the most significant statistics mentioned earlier in this paper is the fact that better than 28% of all Medicare expenditures are spent for people during their final year of life. This may offer us opportunity to deal with the escalating costs of Medicare, but it is also frought with moral, ethical and legal obstacles.

Those who argue that the program can't afford to prolong so many hopeless lives using heroic measures see rationing of medical care as the answer. They believe it will be necessary to restrict care to those who might benefit from it because it is too expensive to do otherwise. The problem will compound as lifespan increases and our ability to sustain life improves. The proponents of rationing contend that it will be essential for the program to intelligently assess all chronic terminal diseases in order to develop reasonable guidelines for those costs Medicare can afford to cover.

We don't believe that such a direct approach stands much of a chance, especially at a time when there are some in the Congress calling for an expansion of Medicare benefits. Perhaps the "Living Will" concept offers a less offensive alternative. A "living will" is executed by an individual at any time during his lifetime while he has complete control of his faculties, and simply provides that no extraordinary life support systems or heroic methods will be used to sustain his life under conditions to be defined by his family and physician. It is referred to as a "living will" because it is administered prior to one's death as opposed to most other wills which are administered after one's death. If properly executed and administered, "living wills" are not in conflict with moral teaching.

We believe that most people, if confronted in advance about the quality of life during the latter stages of a terminal illness, would opt not to submit to heroic measures to sustain their lives. This prerogative can easily be provided for through the execution of a "living will". Although it might be difficult to quantify its savings to the program, there can be no doubt that widespread promotion and acceptance of the idea would have a favorable impact on a major segment of Medicare costs.



If you recognize Tad's father, you'll recognize the name of one of the largest life insurance companies in America.

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Drunk Driving: Physicians Can and Must Make the Difference

Guest Editorial

THIS MONTH, on Sept. 1, the new drunk-driving law will go into effect in Indiana. It was originally drafted by a large, bipartisan, and multi-disciplined group of professionals who make up the Governor's Task Force to Reduce Drunk Driving, and was then passed unanimously by both houses in the Indiana state legislature.

Its key features are those that are highly recommended by the Presidential Commission on Drunk Driving. The entire legislative package has been reviewed by the constitutional lawyers of the Indiana Civil Liberties Union, who found it to contain no constitutional defects. Utilizing the expertise of authorities in the field, the Indiana State Medical Association Ad Hoc Committee to Reduce Drunk Driving has intensively studied this legislation during the past year, and we think it is a good law which promises to save lives without infringing on any of the important rights and freedoms that we enjoy in Indiana.

It is my view that, *if supported by the public,* it may well be instrumental in the future prevention of three Hoosier deaths per week and six serious injuries every day in alcohol-related motor vehicle accidents in Indiana. It will work *if it is supported by the public*; without this support, this law will in all likelihood fail in its purpose to save lives . . . just like all the efforts of previous decades.

Bobby Small, former chairman of the Governor's Task Force to Reduce Drunk Driving and current executive director of the Criminal Justice Institute, informed our committee that even good laws will not work if the public perceives them as bad. In that situation, the power of perception overrules the power of reality. Policemen will avoid making arrests, prosecutors won't prosecute, juries won't convict, and judges won't sentence. Eventually, without the agreement and support of the people, even a good law will be repealed or be rendered ineffective by key legislative changes or by the failure to carry out its intent.



MICHAEL B. DU BOIS, M.D.
Indianapolis

The effect of the law will fail if not supported by the public. . .

Recognizing the high esteem in which the public holds the medical profession and the respect it pays to our opinions, Mr. Small has asked for our organized and individual support of this law. He feels that our attitudinal support of this law may be a key factor in whether or not it actually works to reduce the number of injuries and fatalities on our highways in alcohol-related motor vehicle accidents. We should, therefore, offer our wholehearted support to this new law.

The new law's purpose is to save lives and prevent injuries, rather than to concentrate on punishment. The theoretical basis for its provisions lies in the well accepted concept in law theory that the important elements to consider in creating an effective official deterrent include: 1) swiftness, 2) certainty, and 3) severity of the official sanctions imposed. The new law focuses on swiftness and certainty and, for the most part, does not call for a significant increase in the severity of drunken-driving penalties. The practical basis for this law is the fact that similar laws in other states have significantly decreased the number of fatalities on the highways in those states.

There are a number of attractive and key features to this new law. The first is the "per se provision," which makes it a crime in itself to drive with a blood alcohol level of 0.1% or above. Previous law considered such a reading as only *evidence* for impairment, which could be refuted in court. This resulted in the clogging of the

The author is chairman of the ISMA Ad Hoc Committee to Reduce Drunk Driving.

court systems with such a hugh array of cases that prosecutors were forced to plea bargain many drunken-driving charges to lesser offenses, thus destroying any possibility of deterrence through "certainty or penalty." The number of such plea bargains is vividly illustrated by a report by the Governor's Task Force in California that nearly 80,000 drunken-driving cases were plea-bargained in 1978 in that state.

Requiring a breath test for alcohol does not violate 5th Amendment rights. . .

Dr. Robert Forney, distinguished professor of Pharmacology and Toxicology and director, State Department of Toxicology, Indiana University Medical Center, informed our committee that an overwhelming body of scientific evidence supports the validity of the use of breath tests for alcohol to document impairment. The breath test for alcohol is a reliable test, and it is administered only by officers trained and certified by Dr. Forney's department. Studies in his and other laboratories have shown that 100% of persons tested are measurably impaired in important driving skills at 0.08%, a full 20% below the 0.1% stated in the law. It has been reported that a blood level of 0.1% is associated with a seven-times increased risk of having a fatal accident, and a level of 0.15% is associated with a 25-times increase in the statistical risk of having a fatal accident.

In response to the people who say, "I can drive as well drunk as most people can sober," Dr. Forney reports that judgment is one of the first mental faculties affected by alcohol. He says that setting the acceptable blood alcohol concentration at the limit of 0.1 is like setting a speed limit for alcohol. To consider it unjust to arrest a man with a level of 0.1 because he is a good driver while drunk would be tantamount to failing to arrest A. J. Foyt for driving 60 m.p.h. through a school zone because his driving skill might allow him to do that safely. Dr. Forney says, "You've got to set the limit somewhere. If there is any problem here, it's that the level should be lower."

The second major feature is the automatic suspension of a driver's license for 180 days if he fails the breath test for alcohol. This is carried out by the Bureau of Motor Vehicles after the probable-cause hearing and before he actually goes to court, and this official sanction should occur within about 10 days of his infraction. This provision creates deterrence through swiftness, certainty, and severity of the penalty. Now, instead of seeking a number of continuances, the defendant (who will have had his driving privilege revoked) will be anxious to appear in court to try and gain a partial reinstatement of his privilege to drive to work.

Although this automatic removal of the license prior to a court appearance will seemingly violate the basic premise that a person is innocent until proven guilty in the criminal justice system, an intelligent analysis reveals that this concern has very little basis in fact. "Innocent until proven guilty" is a concept applicable to the criminal justice system, whereas the suspension of the license in this law is an administrative act carried out by the civil administration system, not the criminal justice system. The concept "innocent until proven guilty" is not and should not be applicable to civil administration. It is within this system that the Public Health Department can temporarily close a

Indiana's New Drunk Driving Law Contains No Constitutional Defects: Civil Liberties Union. . .

restaurant that poses a threat to the public's health, or that the Police Department can temporarily suspend an officer who may be dangerous to public safety. There are other examples of this kind of suspension of a privilege (driving is a privilege, not a right) for the protection of the public.

The third key feature is the automatic suspension of a driver's license for one year *without* provision for driving to and from work if he refuses to take a chemical test for blood alcohol. This is a highly necessary aspect of this law, without which the entire package would be rendered less effective. To go to court without the supportive evidence of a chemical test is so impractical and costly, that plea bargaining to a lesser charge

Judgment is one of the first mental faculties affected by alcohol. . .

becomes a more practical and realistic choice for the prosecution. A person is required to supply breath or blood for alcohol testing in the same manner that he is expected to make available hair samples, fingerprints, etc. Refusing to take a chemical test for alcohol violates the "implied consent law," an old, established law which states that a person agrees to submit to a chemical test as part of the privilege of obtaining a driver's license. Requiring a breath test for alcohol does not violate Fifth Amendment rights. We were assured by the constitutional lawyers that Fifth Amendment protection refers only to verbal testimony, not physical evidence. We feel that automatic suspension of the license is an appropriate sanction for violation of this law.

I urge you to talk about this law with your patients, colleagues and friends, and to support it fully. This law will save lives! When a similar law was enacted in Iowa in July 1982, it was credited with a greater than 30% reduction in fatalities and injuries, and similar reports are coming in from other parts of the country. In Indiana, a 30% reduction would mean that three lives per week would be saved and six serious injuries every day would be prevented.

We, as physicians, have a very real and exciting opportunity to participate in a life-saving project simply by sharing our informed opinion with the people around us. We should take advantage of this opportunity.



AUXILIARY REPORT

Hulda Classen (Mrs. Peter)
President, ISMA Auxiliary

Barbara Romick (Mrs. Bruce)
Evansville
Chairman of Women's Activities
1983 ISMA Convention

Both physicians and their spouses can look forward to something new and different at this year's annual convention. While physicians can anticipate some dynamic sessions dealing with the challenges of alternative health care delivery and other current issues, your spouses can find some delightful alternatives in the Evansville area.

We plan to take full advantage of all there is to see and do in Evansville. . . or at least as much as we can squeeze into one weekend!

An outline of auxiliary activities for this year's convention is given below. Take a look at it, then please remember to take it home to your spouse!

Saturday, October 15, 1983

Join us in historic New Harmony.

In New Harmony log cabins built in 1775 rub shoulders with the only North American building to be included in the Encyclopedia Britannica Yearbook—the fabulously futuristic New Harmony Atheneum. Wear comfortable shoes and join us for a day of sightseeing. Transportation to the village and a leisurely lunch at the charming Red Geranium Restaurant are included for $15 per person. Bus tours are available in the village for $5 per person.

Sunday, October 16, 1983

The morning is yours to attend the church of your choice. A list of churches of all denominations within walking distance of the Executive Inn is available at the Registration Desk.

Board meeting at 11 a.m.

Please check at the Registration Desk for the number of the meeting room. Auxiliary Day Luncheon includes special entertainment.

Lunch will be served at the restored Evansville Courthouse, a magnificent, historically significant architectural site. Transportation will be provided to make sure you arrive in time for the 12:30 p.m. luncheon. The $10 per person cost includes a performance by the Evansville Dance Theatre with Jean Kershaw, former prima ballerina of the Stuttgart Ballet Company of Germany. Jean Kershaw is also the wife of the conductor of the Evansville Philharmonic Orchestra.

Monday, October 17, 1982

Tour historic Evansville.

With every major architectural style of the 19th century represented, Evansville holds a wealth of Indiana history. Wrap up your weekend in the river city with a professionally guided tour in a comfortable coach.

For just $2 per person, see the beautifully restored John Augustus Reitz Home. Reitz was known as the "pioneer lumber king" in 1872 when the home was built with elaborate walnut wainscoting and parquet floors, ornate mirrors, chandeliers and fireplaces. The home was designed in the style of the Second Empire in France under Louis Napoleon and has been preserved as a showpiece of wealthy Victorian style.

INDIANA STATE MEDICAL ASSOCIATION AUXILIARY
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In vitro studies demonstrate

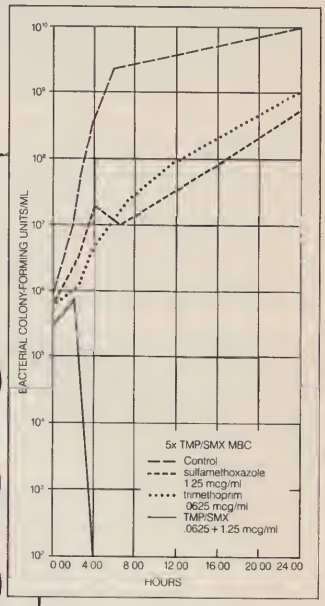
Bactericidal activity with minimal resistance

Percent of isolates of common uropathogens sensitive to BACTRIM and to other antimicrobials

	Escherichia coli	*Klebsiella pneumoniae*	*Proteus mirabilis*	*Proteus vulgaris*	*Proteus sp.*	*Enterobacter sp.*	*Enterobacter aerogenes*	*Enterobacter cloacae*
BACTRIM	**96%** 328,598	**89%** 63,551	**93%** 62,691	**84%** 4174	**91%** 4381	**88%** 1736	**96%** 7326	**92%** 11,856
ampicillin	72% 345,209	5% 65,466	85% 67,338	16% 4381	70% 4402	10% 1775	9% 7759	11% 12,091
cephalexin†	81% 343,339	85% 67,031	92% 67,027	16% 4398	80% 4365	22% 1834	13% 7571	12% 11,846
nitrofurantoin	97% 307,785	65% 61,162	7% 59,775	13% 3848	14% 3059	67% 1707	60% 7109	67% 10,830

†Analogous to cephalothin, the primary antibiotic disc used in testing.
Source: The Bacteriologic Report, BAC-DATA Medical Information Systems, Inc., Winter Series, 1981-82.
Numbers under percentages refer to the projected number of isolates tested.

RAPID *IN VITRO* DESTRUCTION OF *E. COLI* *



Kill curve kinetics of Bactrim and its individual components against *E. coli in vitro.*[1]

The bactericidal action of Bactrim has been demonstrated *in vitro* on laboratory strains of *E. coli*[1,2] and on clinical isolates of *E. coli, Klebsiella-Enterobacter, Proteus mirabilis* and *Morganella morganii*[3]—the most common causative organisms of urinary tract infections.[4] More than 100 published studies attest to the efficacy of Bactrim in recurrent urinary tract infections due to these organisms.[5] In comparative studies with other antimicrobials, Bactrim has consistently demonstrated unsurpassed efficacy during therapy.[6-11]

Resistance to Bactrim develops more slowly than to either of its components alone *in vitro.** Among urinary tract isolates, resistance has rarely emerged in susceptible strains.[5,12] Bactrim is contraindicated in pregnancy at term, during lactation, in infants less than two months old and in documented megaloblastic anemia due to folate deficiency.

Initial episodes of uncomplicated urinary infections should be treated with a single-agent antimicrobial.

Bactrim™ DS

(trimethoprim and sulfamethoxazole/Roche)

b.i.d. *for recurrent urinary tract infections*

**In vitro* data do not necessarily predict clinical results.

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See next page for references and a summary of product information.

References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Kramer MJ, Mauriz YR, Robertson TL, Timmes MD: Morphological studies on the effect of subinhibitory and inhibitory doses of sulfamethoxazole-trimethoprim combination on *Escherichia coli*. Presented at the 12th International Congress of Chemotherapy, Florence, Italy, Jul 19-24, 1981. **3.** Spicehandler J *et al: Rev Infect Dis* 4:562-565, Mar-Apr 1982. **4.** Stamey TA: *Pathogenesis and Treatment of Urinary Tract Infections*. Baltimore, Williams & Wilkins, 1980, p. 13. **5.** Ronald AR: *Clin Ther* 3:176-189, Mar 1980. **6.** Cooper J, Brumfitt W, Hamilton-Miller JMT: *J Antimicrob Chemother* 6:231-239, 1980. **7.** Gower PE, Tasker PRW: *Br Med J* 1:684-686, Mar 20, 1976. **8.** Cosgrove MD, Morrow JW: *J Urol* 111:670-672, May 1974. **9.** Iravani A *et al: Antimicrob Agents Chemother* 19:598-604, Apr 1981. **10.** Schaeffer AJ, Flynn S, Jones J: *J Urol* 125:825-827, Jun 1981. **11.** Rous SN: *J Urol* 125:228-229, Feb 1981. **12.** BAC-DATA Medical Information Systems, Inc., Bacteriologic Reports, Winter Series, 1976-82.

Bactrim™ DS

(trimethoprim and sulfamethoxazole/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, hepatocellular necrosis, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients. *Pregnancy:* Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, hepatocellular necrosis, diarrhea, pseudomembranous colitis and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: *Not recommended for infants less than two months of age.*

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 20. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per tea spoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

References:

1. Stone PH, Turi ZG, Muller JE: Efficacy of nifedipine therapy for refractory angina pectoris. *Am Heart J* 104:672-681, September 1982.

2. Antman E, Muller J, Goldberg S, et al: Nifedipine therapy for coronary-artery spasm: Experience in 127 patients. *N Engl J Med* 302:1269-1273, June 5, 1980.

BRIEF SUMMARY

PROCARDIA® (nifedipine) **CAPSULES** For Oral Use

INDICATIONS AND USAGE: I. Vasospastic Angina: PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm In those patients who have had angiography, the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component but where vasospasm has not been confirmed, e g , where pain has a variable threshold on exertion or in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers

II. Chronic Stable Angina (Classical Effort-Associated Angina): PRDCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina) PRDCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in those patients are incomplete

Controlled studies in small numbers of patients suggest concomitant use of PRDCARDIA and beta blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings)

CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA.

WARNINGS: Excessive Hypotension: Although in most patients, the hypotensive effect of PRDCARDIA is modest and well tolerated, occasional patients have had excessive and poorly tolerated hypotension These responses have usually occurred during initial titration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Severe hypotension and/or increased fluid volume requirements have been reported in patients receiving PROCARDIA together with a beta blocking agent who underwent coronary artery bypass surgery using high dose fentanyl anesthesia The interaction with high dose fentanyl appears to be due to the combination of PRDCARDIA and a beta blocker, but the possibility that it may occur with PRDCARDIA alone, with low doses of fentanyl, in other surgical procedures, or with other narcotic analgesics cannot be ruled out In PRDCARDIA treated patients where surgery using high dose fentanyl anesthesia is contemplated, the physician should be aware of these potential problems and, if the patient's condition permits, sufficient time (at least 36 hours) should be allowed for PRDCARDIA to be washed out of the body prior to surgery

Increased Angina: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PRDCARDIA or at the time of dosage increases The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Beta Blocker Withdrawal: Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PRDCARDIA initiation It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA

Congestive Heart Failure: Rarely, patients, usually receiving a beta blocker, have developed heart failure after beginning PRDCARDIA Patients with tight aortic stenosis may be at greater risk for such an event

PRECAUTIONS: General: Hypotension: Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PRDCARDIA is suggested Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. (See Warnings.)

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PRDCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction

Drug interactions: Beta-adrenergic blocking agents (See Indications and Warnings) Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates: PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antianginal effectiveness of this combination.

Digitalis: Administration of PROCARDIA with digoxin increased digoxin levels in nine of twelve normal volunteers. The average increase was 45%. Another investigator found no increase in digoxin levels in thirteen patients with coronary artery disease. In an uncontrolled study of over two hundred patients with congestive heart failure during which digoxin blood levels were not measured, digitalis toxicity was not observed Since there have been isolated reports of patients with elevated digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing PROCARDIA to avoid possible over- or under-digitalization.

Carcinogenesis, mutagenesis, impairment of fertility: When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose.

Pregnancy: Category C. Please see full prescribing information with reference to teratogenicity in rats, embryotoxicity in rats, mice and rabbits, and abnormalities in monkeys.

ADVERSE REACTIONS: The most common adverse events include dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5% Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antianginal medication Additionally, the following have been reported: muscle cramps, nervousness, dyspnea, nasal and chest congestion, diarrhea, constipation, inflammation, joint stiffness, shakiness, sleep disturbances, blurred vision, difficulties in balance, dermatitis, pruritus, urticaria, fever, sweating, chills, and sexual difficulties. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients It remains possible, however, that some or many of these events were drug related Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

Laboratory Tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CPK, LDH, SGDT, and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy The relationship to PRDCARDIA therapy is uncertain. These laboratory abnormalities have rarely been associated with clinical symptoms Cholestasis, possibly due to PRDCARDIA therapy, has been reported twice in the extensive world literature

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA CAPSULE contains 10 mg of nifedipine PRDCARDIA CAPSULES are supplied in bottles of 100 (NDC 0069-2600-66), 300 (NDC 0069-2600-72), and unit dose (10x10) (NDC 0069-2600-41). The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

More detailed professional information available on request

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Pfizer LABORATORIES DIVISION
PFIZER INC

"I can do things that I couldn't do for 3 yrs. including joining the human race again."



1983, Pfizer Inc.

"My daily routine consisted of sitting in my chair trying to stay alive."

"My doctor switched me to PROCARDIA[*] *as soon as it became available. The change in my condition is remarkable."*

"I shop, cook and can plant flowers again."

"I have been able to do volunteer work...and feel needed and useful once again."

PROCARDIA can mean the return to a more normal life for your patients—having fewer anginal attacks,[1] taking fewer nitroglycerin tablets,[2] doing more, and being more productive once again.

Side effects are usually mild (most frequently reported are dizziness or lightheadedness, peripheral edema, nausea, weakness, headache and flushing, each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%).



for the varied faces of angina

PROCARDIA®
(NIFEDIPINE) *Capsules 10 mg*

rocardia is indicated for the management of:
) Confirmed vasospastic angina.
) Angina where the clinical presentation suggests a possible asospastic component.
) Chronic stable angina without evidence of vasospasm in atients who remain symptomatic despite adequate doses of eta blockers and/or nitrates or who cannot tolerate these gents. In chronic stable angina (effort-associated angina) ROCARDIA has been effective in controlled trials of up to ight weeks' duration in reducing angina frequency and ncreasing exercise tolerance, but confirmation of sustained ffectiveness and evaluation of long-term safety in these atients are incomplete.

Please see PROCARDIA *brief summary on adjoining page.*

Motrin®
ibuprofen, Upjohn
600 mg Tablets



More convenient for your patients

Upjohn

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J-9043-4 July 1981

CONVENTION SECTION

134th Annual Convention
Indiana State Medical Association
October 14-17, 1983
Executive Inn—Evansville

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* The following items will be found in the *Delegate's Handbook* or in special handouts that will be available at the convention site:

- Complete schedule of events
- Roster, House of Delegates
- Reports of commissions and committees
- Resolutions

NOTE: Resolutions to be introduced this year will be published as a special insert in the October issue of THE JOURNAL. Actions taken on those resolutions will be published in the December issue, which will feature a complete wrap-up of 1983 ISMA convention activities.

Official Call

The House of Delegates of the Indiana State Medical Association will convene at 7 p.m., EST, Friday, Oct. 14, in the Florida Room of the Executive Inn, Evansville, Ind. The House will reconvene for its second (final) session at the same location at 9 a.m., EST, Monday, Oct. 17.

Representation in the House for the 1983 Annual Meeting will be as follows:

Marion County—28 delegates.

Lake County—13 delegates.

Allen County—9 delegates.

Vanderburgh County—8 delegates.

St. Joseph County—6 delegates.

Delaware-Blackford, Owen-Monroe and Tippecanoe Counties—4 delegates each.

Bartholomew-Brown, Elkhart, Vigo and Wayne-Union Counties—3 delegates each.

Clark, Daviess-Martin, Dearborn-Ohio, Fayette-Franklin, Fountain-Warren, Grant, Harrison-Crawford, Howard, Jefferson-Switzerland, LaPorte, Madison, Parke-Vermillion and Porter Counties—2 delegates each.

The remaining 57 Indiana county medical societies—1 delegate each.

Fourteen trustees and the 17 ex-presidents.

The Student Council, I.U. School of Medicine—1 delegate.

Total delegates: 203.

The following shall be ex officio members; the president, president-elect, executive director, treasurer, assistant treasurer, speaker, vice-speaker and delegates to the American Medical Association, all without power to vote, except in the case of a tie vote, when the speaker shall cast the deciding vote.

All delegates must present their credentials card certified by their county medical society before being seated as a delegate. No delegate will be seated without proper certification.

The order of business will be published in the annual Delegate's Handbook, which will be distributed at the convention site to all ISMA members.

The Convention Theme

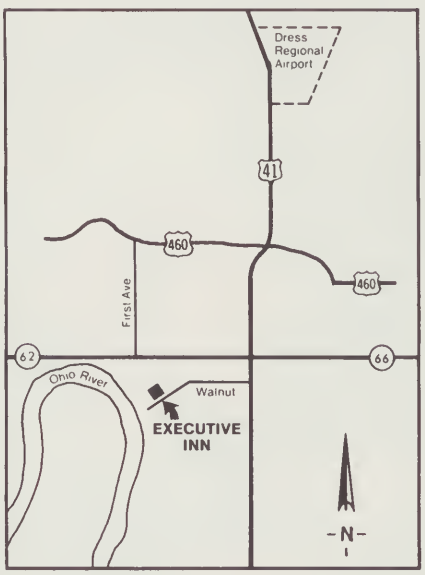
This year's convention theme, "Medical Care in a Changing Society" will serve as a back-drop for a new convention feature, a General Meeting that will focus on socio-economic issues of special concern to Indiana physicians.

The General Meeting will be held Saturday to provide updates and discussions on business-medicine coalitions, Indiana malpractice, Health Maintenance Organizations, Preferred Provider Organizations, Diagnostic Related Groups, Professional Review Organizations, and the Federal Trade Commission.

Out-of-state speakers will include George E. Collentine, M.D., Milwaukee (HMOs); Edward Zalta, M.D., Glendora, Calif. (PPOs); Carolyne Davis, Ph.D., Health Care Financing Administration (DRGs); Harry S. Weeks, Jr., M.D., Wheeling, W.Va. (PROs); and James C. Miller III, FTC chairman.

The convention will be held Oct. 14-17 at the Executive Inn in historic Evansville, a city of about 150,000 located midway between Louisville and St. Louis on Interstate 64. The Executive Inn is in the heart of downtown Evansville.

Although delegates and other ISMA members will be taking care of business, there still will be time for relaxation.



Because of the location, a riverboat theme will highlight the President's Dinner on Saturday, to be followed Sunday evening by an actual riverboat cruise.

The President's Dinner ($28 per person) will feature a riverboat decor and music by the Red Wick Dixieland Band and Orchestra. The dinner will be arranged buffet style with various "port" stations throughout the room. Dining will consist of roast prime rib of beef, Newburg of assorted seafoods, sliced Virginia ham and all the trimmings.

Then on Sunday evening, from 7 to 11, a riverboat cruise along the Ohio River ($20 per person) will feature drinks, hors d'oeuvers and a Las Vegas-style casino party.

The 1983 convention will differ from previous ones in that:

- The General Meeting is a first, replacing the General Scientific Meeting.
- The Fifty-Year Club will be honored at a luncheon rather than at the President's Dinner.
- The President's Dinner and Reception will be Saturday, not Sunday.

But some previously tried and well accepted innovations will be repeated:

- The Marion County Medical Society will again host a general reception.
- A medical student reception will again be held.
- A buffet for delegates will again be available before the first session of the House of Delegates.

And, of course, a variety of resolutions will be introduced, discussed and acted upon in an effort by Indiana doctors to meet the challenge of "Medical Care in a Changing Society." The resolutions will be published as an insert in the October issue of THE JOURNAL.



1983 annual meeting

INDIANA STATE MEDICAL ASSOCIATION

come to where
the action will be!
talk about:

"Medical Care in a Changing Society"

get involved, be heard!
air your ideas, renew old friendships,
help keep organized medicine on the move!

ON TAP

- House of Delegates Sessions
- Reference Committees
- Update on New Modes of Medical Practice
- Medical Section Meetings

PLUS

- Entertainment—*something new and special*
- Exhibits
- Receptions
- President's Dinner—*It'll be different this year!*
- Riverboat Cruise, Dinner and Fun!
- And much more . . .



EXECUTIVE INN

A Great Convention Center

Evansville • October 14-17, 1983

Abridged Schedule of Events



GARRY L. BOLINGER, M.D.
INDIANAPOLIS
Chairman
Convention Arrangements

134th Annual Convention
Executive Inn
Evansville, Indiana

FRIDAY, October 14
EST
8:30 a.m. ....Registration Opens
11:30 a.m. ...Board of Trustees Luncheon/Meeting
2 p.m. .....Committee on Rules and Order of Business
3-5 p.m. .....Medical Student Reception/Meeting
5:30 p.m. ....House of Delegates Buffet
7 p.m. .....First Session, House of Delegates

SATURDAY, October 15
EST
8 a.m.-Noon..Reference Committee Meetings
10:30 a.m. ...Special Reference Committee (AMA Affairs)
10:30-5 p.m...General Meeting*
Noon .....IMPAC Luncheon
Noon .....Fifty-Year Club Luncheon
Noon .....ISIM Luncheon
2 p.m. .....IMPAC Board Meeting
5-6:30p.m. ...Marion County Reception
6:30 p.m. ....President's Reception
7:30 p.m. ....President's Dinner ($28/person)

SUNDAY, October 16
EST
7:30 a.m. ....Board of Trustees Breakfast/Meeting
9 a.m.-4 p.m..Medical Section Meetings
Noon .....Past President's Luncheon
Noon .....Editorial Board Luncheon/Meeting
3 p.m. .....Small County Delegates Meeting
4:30-6 p.m....Exhibitors/Physicians Reception
7-11 p.m. ....Riverboat Cruise on Ohio River ($20/person)

MONDAY, October 17
EST
7:30 a.m. ....Board of Trustees Breakfast/Meeting
9 a.m. .....Final Session, House of Delegates
2 p.m. .....Board of Trustees Organizational Meeting and Executive Committee Meeting

* General Meeting itinerary includes business-medicine coalition update, Indiana malpractice update, and discussions/presentations on HMOs, PPOs, DRGs, PROs and the FTC.

AUXILIARY PROGRAM
See "Auxiliary Report" on page 606.



JOHN A. KNOTE, M.D.
President
Indiana State Medical Association
1982-1983

Officers and Others



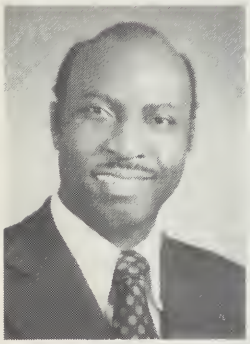
George T. Lukemeyer, M.D.
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Indianapolis



Martin J. O'Neill, M.D.
Immed. Past President
Valparaiso



Douglas H. White, M.D.
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Marion



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Anderson



Shirley T. Khalouf, M.D.
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Michael O. Mellinger, M.D.
Executive Committee
LaGrange



Mrs. Hulda Classen
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Elkhart



Frank B. Ramsey, M.D.
Editor, The Journal
Indianapolis



Donald F. Foy
Executive Director
Indianapolis



Kenneth W. Bush
Asst. Exec Director
Indianapolis

Board of Trustees



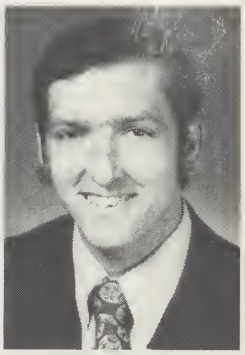
John A. Bizal, M.D.
Evansville
First District



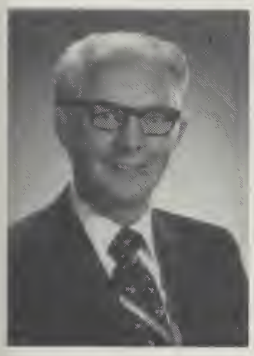
Ralph W. Stewart, M.D.
Vincennes
Second District



Richard G. Huber, M.D.
Bedford
Third District



Mark M. Bevers, M.D.
Seymour
Fourth District



Paul Siebenmorgen, M.D.
Terre Haute
Fifth District



Davis W. Ellis, M.D.
Rushville
Sixth District



D. C. McCallum, M.D.
Indianapolis
Seventh District



H. Marshall Trusler, M.D.
Indianapolis
Seventh District



Richard L. Reedy, M.D.
Yorktown
Eighth District



Max N. Hoffman, M.D.
Covington
Ninth District



Charles D. Egnatz, M.D.
Shererville
Tenth District



Herbert C. Khalouf, M.D.
Marion
Eleventh District



M. O. Mellinger, M.D.
LaGrange
Twelfth District



D. S. Chamberlain, M.D.
South Bend
Thirteenth District

Reference Committees

REFERENCE COMMITTEE NO. 1:
Reports of Officers
William C. VanNess, II, M.D., Alexandria, Chairman
(Madison County—District 8) FP
Robert D. Dodd, M.D., South Bend
(St. Joseph County—District 13) FP
James L. Peters, M.D., Shelbyville
(Shelby County—District 6) FP
Paul T. Maier, M.D., Lafayette
(Tippecanoe County—District 9) CD
B.T. Maxam, M.D., Indianapolis
(Marion County—District 7) GE
Frederick H. Buehl, M.D., Vincennes
(Knox County—District 2) P

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Constitution and Bylaws
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(Vanderburgh County—District 1) ORS
William F. Kerrigan, M.D. Connersville
(Fayette County—District 6) AN
William L. Strecker, M.D., Terre Haute
(Vigo County—District 5) AN
Garry L. Bolinger, M.D., Indianapolis
(Marion County—District 7) PTH
Laurence K. Musselman, M.D., Marion
(Grant County—District 11) P
William J. Sabo, M.D., Munster
(Lake County—District 10) ORS

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(Marion County—District 7) TS
Willard S. Krabill, M.D., Goshen
(Elkhart County—District 13) PH
Larry G. Cole, M.D., Yorktown
(Delaware-Blackford County—District 8) FP
Barbara J. Bourland, M.D., West Lafayette
(Tippecanoe County—District 9) PD
Walter R. Vaughn, M.D., Vincennes
(Knox County—District 2) U
James M. Rausch, M.D., Fort Wayne
(Allen County—District 12) R

REFERENCE COMMITTEE NO. 4:
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(Tippecanoe County—District 9) FP
A. Alan Fischer, M.D., Indianapolis
(Marion County—District 7) FP
Donald D. Cofield, M.D., Bloomington
(Owen-Monroe County—District 2) OPH
Mary E. Carroll, M.D., Crown Point
(Lake County—District 10) FP
Ray H. Burnikel, M.D., Evansville
(Vanderburgh County—District 1) CRS
Wymond B. Wilson, M.D., Mentone
(Kosciusko County—District 13) FP

REFERENCE COMMITTEE NO. 5:
Miscellaneous
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(Allen County—District 12) FP
William E. Weber, Jr., M.D., Bloomington
(Owen-Monroe County—District 2) PS
Steve Foley, M.S., Indianapolis
(Student Council, I.U. Medical School)
Richard Pitman, M.D., Columbus
(Bartholomew County—District 4) DR
Thomas A. Neathamer, M.D., Jeffersonville
(Clark County—District 3) FP
Freeman Martin, M.D., Indianapolis
(Marion County—District 7) FP

REFERENCE COMMITTEE NO. 6:
AMA Matters
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(Lake County—District 10) FP
Marvin E. Priddy, M.D., Fort Wayne
(Allen County—District 12) FP
Fred C. Poehler, M.D., Wabash
(Wabash County—District 11) AN
Russell L. Judd, M.D., Indianapolis
(Marion County—District 7) U
Gordon S. Fessler, M.D., Rising Sun
(Dearborn County—District 4) FP
Michael O. Monar, M.D., Rockport
(Spencer County—District 1) FP

Report of the Executive Director

It is gratifying to note that despite the special $25 dues increase adopted by the House of Delegates last October, ISMA membership continues to increase at the same rate it has increased for the past six years. This is somewhat surprising since most organizations tend to suffer a temporary drop in membership following a dues increase. One might also conclude that this constitutes strong support for the intended purposes of the dues increase.

A recent study by the National Center for Health Services Research (NCHSR) reveals that house calls to homebound chronically and terminally ill patients provides effective, less costly care. With the spectre of an oversupply of physicians on the horizon, the recession and the competition for patients increasing, it would appear that promoting house calls as an alternative might appeal to those physicians who need to compete more aggressively for patients as well as to those who are interested in cost containment.

Actually, more house calls are being made as a result of increasing competition aggravated by the expanding supply of physicians. Although house calls are not a widespread trend and probably never will be because they are not cost-efficient, they have potential public relations value.

In light of the problem regarding Medicare assignment and how we are perceived by many of those over age 65, I firmly believe that we need to forge a relationship with the senior citizen groups. We know from our Washington visits and contacts that the politicians listen and respond to the senior citizens, especially since there are some 30 million of them, over 65, drawing Medicare benefits, 85% of whom vote regularly and who are now much better organized than they ever were. We are in the process of identifying their organizations here in Indiana and will proceed to meet with their leadership. I believe we have a real communication gap with the aged, but I also believe the potential good that we might accomplish for all concerned is tremendous.

There is little doubt in my mind that over the next few years third party carriers will abandon reimbursement based on usual and customary charges and move toward standardized indemnity fee schedules. Application of the DRG concept to physicians will see to that! These schedules could be developed unilaterally and foisted upon us (like the VIP program) unless we are prepared to negotiate them with the carriers. Therefore, I believe it is imperative that we resurrect our Negotiations Committee and charge it with the responsibility for thinking about this problem. The legal aspects of the matter will have to be investigated and the various specialty societies will need to be brought into the picture since it will require a united effort to preserve our freedom.

As their number grows, doctors find themselves competing not only with other doctors and with hospitals, but also with an increasing number of non-physician professionals such as nurse-practitioners, nurse-midwives, and physician's assistants as well as podiatrists, chiropractors, physical therapists, and optometrists. A recent nationwide survey conducted by *Medical Economics* magazine showed that more than one-third of the respondents had sought care from a non-M.D. provider and some respondents had "actually defected from M.D. care altogether." The growing competition has been underlined by debate involving staff privilege provisions in the proposed Conditions of Participation for Medicare and Medicaid, and possible changes in the medical staff standards set by the Joint Commission on the Accreditation of Hospitals (JCAH). The battlefield includes regulatory boards, state legislatures, and state courts. The Federal Trade Commission has taken antitrust action in some instances. Important aspects of the conflict involve hospital admitting privileges, third party reimbursement, federal loan programs, malpractice insurance, and scope of practice rulings.

Under the U.S. regulatory system, all medicines are regulated by the Food and Drug Administration (FDA), and the agency is the sole judge of which medicines qualify for prescription (Rx) and which for over-the-counter (OTC) marketing. FDA may determine that a medicine previously approved for prescription use only has been demonstrated by science and experience to be sufficiently safe for direct sale to consumers. In such cases, the medicine may be "switched" by FDA from Rx to OTC status. Historically, comparatively few medicines have made the transfer. According to proponents of the "switch," recent trends show the switch process to be an increasing source of even safer and more effective over-the-counter medicines.

On Nov. 1, 1982, in Washington, D.C., The Proprietary Association sponsored a symposium on the potential, the promise, and the process of "switch." The association, which represents the manufacturers of OTC medicines, sponsored the day-long discussion of switch because, it believes, "The switch process is based in sound law, supported by good science and impelled by vital considerations of costs and benefits. We believe the switch process offers real and substantial health improvements for the American public.

"The FDA is more willing today than at any time before to recognize that even though a particular condition may have to be diagnosed by a physician, once such a diagnosis has been made, it is no longer essential that drugs used for the alleviation or treatment of that condition be limited to a prescription status."

This movement toward responsible self-medication should be of concern to organized medicine and carefully monitored. Its implications are obvious. Responsible self-medication is the informed and appropriate use of non-prescription medicines for the relief of symptoms and for the treatment of illness and injury without the supervision of a health professional. According to its proponents, however, responsible self-medication does not include the use of prescription medications obtained without professional authorization as well as such medications left over from an earlier illness or prescribed for another person.

As many physicians know, "storefront" medical centers are thriving—they are springing up everywhere, but particularly in shopping malls. Initially, they were aimed at handling emergencies and supplementing hospital emergency rooms, but you can look for them to move more and more into providing routine health care. Some predict that they will provide 25% of primary care by the 1990s.

As a matter of fact, this group now has its own national organization known as The National Association of Free Standing Emergency Centers, which recently filed a complaint (with the FTC) against the AMA charging that AMA's voluntary "Guidelines and Standards for

Report of the Executive Director

Emergicenters" interferes with the growth and development of free-standing emergency centers. What is particularly baffling about this complaint is that the AMA has indicated that its guidelines do not apply to convenience or access clinics that are the equivalent of physicians' offices.

There is some business and investment significance in all of these developments and that is a slower growth of hospitals as a larger proportion of health care is provided outside the hospital. This, of course, has positive implications for the rental of medical equipment and devices and the employment of nurses and allied health personnel outside the hospital.

The results of three separate polls related to regulation and the jurisdiction of the Federal Trade Commission (FTC) over medicine contain some interesting messages for the profession. The polls were conducted in November 1982 and March 1983, and were designed to assess the changes in public opinion during the period of heavy media coverage of the recent controversy between the AMA and the FTC.

The public image of the AMA improved by 2% between 1981 and 1983, with 72% of the public indicating a great deal or fair amount of confidence in the AMA's ability to propose fair and workable health policies. All other groups mentioned in the surveys, including the federal government, congressional committees, and labor unions, showed declines in public confidence. The polls also showed strong public support for a continuation of activities of local medical organizations that have been called into question by recent FTC rulings. These include reviewing complaints of high fees, setting standards of quality and education, and developing broad programs to help control costs. As a result there is some evidence that the FTC's attitude regarding fee review conducted by medical societies may be changing as well.

The polls clearly indicate a growth in support for a local rather than national approach to health planning and regulation. The public shows strong support for self-regulation of physicians rather than federal or state controls, but unless presented with a clear alternative, the public does not support a decrease in federal regulation of medicine. As Congress once again addresses the FTC issue, these trends should be kept in mind by physicians in their dealings with patients and the public.

Patients are becoming more and more difficult to please. They expect more than ever from their doctor. When they are not satisfied, they are more willing than ever before to try a new physician.

A number of the findings of the AMA's 1982 attitudinal surveys are encouraging. Satisfaction with last patient visit is high and increasing. The public image of physicians on scientific issues and quality of care is excellent. Due in part to the efforts of the medical profession, the American public is increasingly aware of the relationship between lifestyle habits and health.

As with past attitudinal surveys, the 1982 Survey of Public Opinion found that the public image of physicians as a group, on economics is poor, even though the public's attitudes toward their personal physicians is good. This disparity probably reflects the impact of the media on the attitudes of the public.

Finally, the findings of the AMA's 1982 attitudinal surveys imply that there are three difficult issues facing organized medicine. These issues are:

1. rising health care costs;
2. growing physician manpower; and
3. increasing competition in medicine.

Each of these issues represents a potential dilemma for organized medicine. There are no easy answers to any of these problems. Organized medicine must intensify its efforts to find innovative, widely acceptable, and effective responses to these issues.

Donald F. Foy
Executive Director

Report of The Journal Editor

The financial statement for the first three quarters of the fiscal year shows THE JOURNAL on the sunny side of the budget. As a result of more income and less outgo than expected, the good news is approximately $8,000. Both national and local advertising revenues are ahead and the subsidy for the continuing medical education articles, which are written and supported by the Continuing Education Division of IU School of Medicine, is more than expected.

We have received an adequate number of scientific articles. These, together with a proper proportion of socio-economic discussions, have been maintained in numbers which allow time for proper preparation and an interval between acceptance and printing of six or seven months.

We have a new printer. Starting with the May 1983 issue, Western Newspaper Publishing Company of Indianapolis has handled the typesetting, printing and binding under one roof. Many advantages have accrued from the change to an excellent facility close to ISMA headquarters.

During the year, we have taken advantage of Word Processor equipment for typing editorial inserts which may be produced economically on special paper and bound in THE JOURNAL at the last minute. Journal content requires most of the month preceding delivery for typesetting, printing and binding. Special typewritten inserts may be prepared three of four days prior to binding. Fast-breaking information may be dispensed quickly by this method.

The staff of THE JOURNAL has under consideration a title change. Of the 40 or so state medical journals in the United States, 10 have adopted the style of Indiana Medicine. It is a new style—short, compact and snappy. If adopted, it will be accompanied by our present title in small type to indicate to indexers and libraries that the publication continues but with a new title.

Frank B. Ramsey, M.D.
Editor

Reports of Officers

President

What an honor it has been to serve as your ISMA president for the past 12 months! The rewards and educational experiences have far out-weighed the negative aspects. If I have returned to the organization only a small fraction of what it has given to me, I consider the year a success.

This message is being prepared (for publication purposes) only three months after publication of our first-ever semi-annual report, and three months prior to the actual end of the ISMA year. Therefore, these remarks will identify specific events, accomplishments, and individuals that have stood out during the year. The president's address at the annual meeting will be directed toward general philosophies, politics, and trends in our profession.

Among the most enjoyable activities to date have been district and county society meetings. The greater attendance, younger average age, and quality of ideas expressed at the district and county society levels give renewed hope for the maintenance or our profession plus the viability of our organization as an effective voice of medicine.

The combination of ever increasing membership interest and outstanding effort by the unparalleled ISMA staff has led to commission and committee achievements that are very gratifying. Specifically, the Drunk Driving Committee (Michael DuBois, M.D., chairman), the Sports Medicine Committee (Gary Prah, M.D., chairman) and the Physician Impairment Commission (Larry Davis, M.D., chairman) have achieved results about which you will be pleased to learn in their reports. I specifically recommend that the Drunk Driving Committee be continued as a Commission on Public Awareness of Substance Abuse. I also recommend establishment of the Sports Medicine Commission with the same full funding and status as other commissions.

Further commendations are due to such individual members as Jane Hoopes, M.D. of Evansville, Dennis Nicholas, M.D. of Indianapolis, and Ned Masbaum, M.D. of Indianapolis, who helped further the philosophy of ISMA by their personal involvement or were interested enough to submit potential solutions to problems that involve our organization. These three certainly are not the only individuals whose efforts were appreciated, but they do exemplify the many contributions. Special recognition should be accorded to people like Ed Langston, M.D. of Flora, who found time to participate in a very active family practice, serve as president of the Indiana Academy of Family Physicians and as an ISMA alternate trustee, plus serve as the Carroll County Republican chairman. Such commitment typifies the involvement we must have across Indiana and the nation if our patients and our profession are to be protected from bureaucrats and from those who would remand the present medical care structure to systems less capable.

Special thanks to the over 400 Indiana doctors who indicated, in response to the Indiana Society of Internal Medicine and subsequently to an ISMA questionnaire, that they would consider seeing additional economically distressed patients under modified arrangements. The ISMA has no interest in impacting any practice financially, but your response is an excellent beginning in our effort to demonstrate compassion and to participate in the finest tradition of Indiana practitioners during such an economic period.

I have serious concerns about three areas. Our individual involvement in the legislative process (knowing legislators personally, contributing time and money, and becoming knowledgable on the issues) must continue to improve if we are to protect our patients and preserve traditional medical practice.

Another source of consternation is that of a major third party insurance market (rather than as a cost control measure, as they originally stated). That company, it seems to me, has adversely affected doctor-patient relationships, and possibly limited a patient's choice of doctor, with potential deleterious effects on the ultimate health of the patients. This situation unfairly impacts the 95% (or more) of doctors whose charges are well within reasonable range. How unfortunate that the company has failed to accept actuarial and management problems as major contributors to its losses and attempted instead to shift the responsibility to doctors.

The third area of concern is that of Medical Licensing Board regulations. I hope that the board interprets its charge as one of guaranteeing that licensed practitioners of medicine have the stipulated training and are carrying out the type of practice indicated by that training. Attempts by the Medical Licensing Board, or an individual hearing officer of the board, to set fees for various levels of care or complexity of procedure would certainly limit free enterprise and very possibly have a negative effect on the quality of medicine practiced. Likewise, the direct reporting of any suspected medical practice impropriety to the Medical Licensing Board, without due process or adequate substantiation locally, may well lead to charges and countercharges that would result in lowering quality of care patients receive and benefit only the attorneys involved in the legal morass thereby created.

Finally, I predict significant success for the two insurance companies in which ISMA is directly participating. While the life insurance company (IPIC) stock sale to our members was suboptimal, policy sales have been increasing regularly. The formation of American Physicians Life Insurance Company (APL) with our company being absorbed as part of a larger operation with Ohio, Kentucky and Michigan (rather than our company being simply a subsidiary of the Ohio company) is an opportunity that belies the dour predictions of a few "crepehangers" among us. Potential for expansion of this company into three other states is very real, and long-range projections would include between 10 and 20 states ultimately being involved.

The medical liability company, Physicians Insurance Company of Indiana (PICI), is increasing policy sales monthly and its prospects are also increasing as policyholders learn about the company through its lower premium rates, physician-controlled claims and underwriting committees and its outstanding loss prevention program that has already been developed. There are now at least 32 captive medical liability companies in the U.S., all are reportedly doing well, and this is one of the two ways in which your state association can help you prepare for and face the next medical liability crisis.

The other effort that ISMA must make, and with which each of you must assist individually, is the legislative push to resist changes in our medical liability act that are certain to be proposed by outside forces within the year.

Thank you all for the enriching experience of being ISMA president. I eagerly anticipate using the background developed this year to serve ISMA on a continuing basis within the organization, at the AMA level, or wherever the opportunity may arise.

John A. Knote, M.D.
President

Board of Trustees

The Board of Trustees had an extremely busy year in dealing with the affairs, programs and projects of the Association. As chairman, I must first express my greatest respect for the dedication and devotion to the business of this Association so freely given by the trustees, alternate trustees and officers. I would hope that all members would join me in thanking them for their sincere, thoughtful and painstaking deliberations.

Some of the major issues this year included the following:

The Board instructed special counsel to file suit by July 1, 1983, against Blue Shield if, by that date, there had not been a favorable response from the Blue Shield Board regarding the acceptance of dual signatures (patient-physician) on reimbursement checks sent to patients of non-participating physicians as previously discussed with the Blues' legal counsel. After what appears to be progress, the Board postponed the filing date to July 20, following another meeting of the Blue Shield Board.

The Board voted to allow grandchild(ren), under the age of 24, to be covered under the member's health insurance policy if the member is made legally responsible for said grandchild(ren) by the court.

The ISMA-sponsored "Heartbeat" television series for statewide broadcast on PBS was approved by the Board. The Board also authorized an expenditure of $2,500, if the other $10,500 was committed by outside sources, to edit the existing series of 13 Heartbeat programs that were aired on WANE-TV in Fort Wayne and to produce four public service announcements.

P.R. Duke's proposal to purchase all ISMA properties in return for a commitment to lease office space from them was rejected. The Future Planning Committee was requested to continue to study the future space needs of the headquarters and make recommendations.

The Board apprised the Health Care Financing Administration of ISMA's interest in coordinating the PRO program in Indiana, depending on the structure of the program.

In conjunction with the Marion County Medical Society, the Board submitted comments along with those received from ISMA members on the Medical Licensing Board's proposed rules regarding professional conduct.

A letter of composite comments expressing ISMA's dissatisfaction with the proposed revisions to the JCAH Manual was sent to the AMA president and other JCAH board members. Personal contact with other state medical associations was also made to let them know the ISMA position. Additionally, the AMA delegation responded with an appropriate resolution disapproving JCAH action.

It was noted that member claims exceed the income for the health insurance program. The Board requested a comparison of the two existing insurance plans according to utilization and that the policyholders be advised of the claims overutilization.

Prior to the December and June meetings of the AMA, the Board reviewed, in conjunction with the AMA delegation, over 300 resolutions and reports submitted to the AMA House.

Legislative matters consumed much of the Board's time. Members were kept abreast of issues at the state and national levels by ISMA staff and the legislative commission chairman and its members.

Focus Group Interviews, a new approach to gaining member attitudes toward ISMA, was approved by the Board. Directed toward open and frank discussions with six to seven members and non-members invited to attend from an area, the first interview proved unusally informative and was appreciated by all.

With rising costs of hotel accommodations and travel, the Board increased the stipend for each AMA delegate and alternate delegate to $1,500 per meeting.

Don Blinzinger, administrator, Indiana Department of Public Welfare, met with the Board and conveyed his concerns, in an extremely informative report, dealing with the ever-increasing Medicaid budget. Of the $966 million expended to run the state's welfare system, $489 million was devoted to the Medicaid program in Indiana.

The Indiana State Board of Health was notified of ISMA's concern about appropriate and timely notices for filing testimonial applications at evidentiary hearings.

The Board approved ISMA representation and participation in the Indiana Advisory Council on Health Care Economics. This is an extension of the Voluntary Effort Committee, and is now seeking the role as an advisory group to the Governor on the economics of health care.

The Board endorsed the concept of the for-profit formation of Physicians Services Development Corporation and appropriated $25,000 in the F.Y. 83-84 ISMA budget for this purpose. The for-profit corporation will identify and develop new business opportunities, especially in the insurance area, for its shareholders.

The Board endorsed the resolution received from Grant County Medical Society commending Eugene Rifner, M.D., ISMA president, 1967, for his years of service to organized medicine.

Michael DuBois, M.D., and Stephen Goldsmith, Marion County prosecutor, addressed the Board to request financial assistance for a PR campaign to increase public awareness of the dangers of drinking and driving, and the change in law that is effective Sept. 1 regarding driving while intoxicated. The Board approved the request for funds up to $7,500 for a "Responsible Drinking" campaign.

With the conclusion of this year I will have served five years as trustee of the 5th District; the last two, as chairman of the Board of Trustees. In the latter position, it has not only been my duty and privilege to preside over the Board meetings, but to be a member of the Executive Committee, ex-officio member of the various committees and commissions and a part of the ISMA delegation, which attended the

December and June meetings of the AMA. Through the mounds of paperwork and endless items of business focused within the framework of these countless meetings, I humbly submit that I have done my best to properly represent physicians of this state and their concerns for the continuing quality of medical care and health for their patients.

It has also been through this complex process that one really learns, more than ever, to respect and admire the quality of our ISMA leaders, representatives and the entire devoted staff. Indiana medicine is indeed most fortunate.

For the record, my additional activities this year included my continued participation as officer and executive committee member of the Statewide Health Coordinating Council (HSCC), member of the Board of the Physicians Insurance Company of Indiana (PICI), chairman of the Ad Hoc Committee on Health Resources of the Indiana State Board of Health, member of the advisory committee in the search for a new dean of Indiana University School of Medicine, and concluded my eighth year as a member of the Board of Trustees of Indiana State University, on whose campuses are two of our Indiana Centers for Medical Education. I have also helped to establish the business-medicine coalition in Terre Haute this year, and as of this date, I have attended all ISMA district meetings.

Your Board of Trustees, elected by their districts, and your officers of this Association, elected by the House of Delegates, are physicians from a wide range of disciplines and specialties; from a wide range of urban to rural communities; from large groups to sole practitioners; and from the ivory towers of academia to the offices of a private practice. It is through the framework of this forum, through its frank discussions with the intent of give and take, that decisions are made and solutions to these items of business are reached.

It is obvious that all Board decisions are not unanimous and that all members of this House nor the membership will agree with all actions taken by the Board. But the Board has done its best in light of the information and expertise available at the time. Each trustee and officer covets your constructive suggestions, information and ideas and asks that you freely present them at every opportunity. The trustees and officers serve as your representatives.

Paul Siebenmorgen, M.D.
Chairman

Executive Committee

The Executive Committee, as usual, considered a variety of matters during the year and met routinely once a month.

In this report I will submit only the issues which could be considered fairly major in importance. Among them were the following:

1. A considerable amount of time and study was given to a proposal by the P.R. Duke Company of Indianapolis to purchase all of the properties currently owned by the ISMA in return for a leasing arrangement in the company's property at Keystone at the Crossing. The proposal was ultimately rejected by the Board of Trustees. The Future Planning Committee is currently projecting the long-range needs of the Association in the area of space needs.

2. Proposed regulations by the Medical Licensing Board dealing with Standards of Professional Conduct and the Competent Practice of Medicine were scrutinized on a continuing basis by the Executive Committee, who heard reports from the ISMA attorneys, and made recommendations for amending or revising specific matters set forth in the proposals.

3. The Committee authorized the allocation of $2,000 to the Ad Hoc Committee to Reduce Drunk Driving for the conduct of its business during 1983. The Committee additionally authorized a representative of the Ad Hoc Committee to attend an International Symposium on Alcohol and Driving in Washington, D.C.

4. The VIP (Voluntary Incentive Program) was paramount in the Committee's deliberations and every avenue of negotiation was pursued to solve the many problems created by the inauguration of this program with the objective of doing everything possible to avoid a law suit on the issue.

5. Policies were established for ISMA members wishing to utilize the corporate airplane.

6. The annual Washington visitation was reviewed and in the interest of budgetary considerations the Committee evaluated the possibility of reducing the number of persons attending and the possibility of utilizing multiple visits of smaller groups throughout the year.

7. Continued surveillance of the Association's investments remains an ongoing task of the Committee, and funds were invested to bring the Association top interest income.

8. The possibility of selling the Harshman Building was referred to the Future Planning Committee for study and recommendation.

9. Staff was directed to develop a resolution to be submitted to the AMA for the Indiana delegation regarding the proposed JCAH revisions to the Accreditation Manual for Hospitals.

10. The Committee evaluated the activities of the ISMA executive director, which is an annual responsibility.

11. The Committee endorsed and recommended the concept of Focus Group Interviews to the Board of Trustees. The interviews are to be implemented and will involve a broad cross section of members and non-members designed to get solid grass roots reactions to ISMA programs and plans.

12. The Board received a recommendation from the Committee authorizing a $25,000 appropriation to the Physicians Services Development Corporation, a for-profit corporation which will identify and effect new business development activities for its physician shareholders in Indiana, Ohio and Kentucky.

13. The Committee additionally authorized $3,000 to hold an educational conference for county society officers and hospital chiefs of staff regarding implementation of the government prospective payment system (DRGs) and the little understood effects of this new program on physicians' practices.

It was an unusually busy year for the Executive Committee, which in its many hours of handling Association business, rejected more proposals than it accepted. Nevertheless, these items, too, demanded additional long hours of the chairman and the Committee members.

This report would be incomplete without a special note of thanks to Don Foy, Ken Bush and each member of the ISMA staff for their continuing efforts on our behalf.

Herbert C. Khalouf, M.D.
Chairman

Reports of Trustees

First District

This is my final report to you as an ISMA trustee. The past six years have been challenging for medicine; the future even more so. I feel strongly that the only realistic way for us to meet these challenges is through organized medicine. I encourage you to participate and to support your newly elected trustee, Dr. E. DeVerre Gourieux, and alternate trustee, Dr. Wallace Adye, Jr.

The First District annual meeting was held June 26, 1983, at the Evansville County Club. Dr. John Knote, ISMA president, alerted everyone to the proposals being considered by the Medical Licensing Board and encouraged all to attend the ISMA annual convention in Evansville Oct. 14-17, 1983. Dr. Gilbert Wilhelmus also moved to allocate $1,000 to the Auxiliary for ISMA convention expenses. Both motions were seconded and unanimously approved.

Dr. Eugene Hendershot, ISMA delegate from Vanderburgh County, announced that Dr. Forrest Radcliff is seeking the position of vice-speaker and would appreciate each physician's support.

Dr. Steven Elliott, president of First District, welcomed additional guests from ISMA including Dr. and Mrs. George Lukemeyer, Dr. and Mrs. Paul Siebenmorgen, Dr. Lawrence Allen, and ISMA staff Sara Klein and Rosanna Iler. Officers of First District elected to serve in 1983-84 are Kent McKinney, M.D., president; Donald Elder, M.D., vice president; and Jeff Rendel, M.D., secretary-treasurer. Dr. Martin Bender announced the winners of the Eighth Annual Bob Acre Memorial Golf Tournament. They were Dr. Anthony Dallas, Low Net, and Dr. John Tisserand, Low Gross.

Membership in First District increased 2% to a total of 469 ISMA members as of Dec. 31, 1982. Seventy-nine per cent of First District members belong to the AMA.

John A. Bizal, M.D.
Trustee

Second District

Linton, Indiana, hosted the 1982 Second Medical District meeting which was presided by Thomas Bailey, M.D., of Greene County Medical Society. John A. Knote, M.D., Martin J. O'Neill, M.D., George Lukemeyer, M.D., and members of ISMA staff were present and rounded out the scientific meeting. Dr. Frank McKinney presented a picture of the economy at the banquet supper. Fred Buehl, M.D., was elected president for the coming year and the Knox County Medical Society will host the 1983 Second Medical District meeting in Vincennes, Ind.

During the past year I have attempted to represent the feelings and desires of the members of the Second District. I hope this has been accomplished. I would like to express my gratitude to the members for their support and allowing me to represent them. I have tried my best to keep abreast of the issues. The following is a list of the main issues faced and discussed by your ISMA Board of Trustees and our collective attempt at the proper solutions:

1) Last fall the House of Delegates instructed the Board of Trustees to deal with the almost universally disliked VIP program of BC/BS—including litigation if all other avenues of communication failed. They also voted in favor of a dues increase of $25 per year for two years (creating a Medical Defense Fund) to deal with any third party policy which may interfere with the physician-patient relationship. During the past months, the ISMA Board has participated in several unproductive meetings with BC/BS. Internal and external legal counsel was sought and the recommendations were either a suit concerning antitrust action or a suit concerning discrimination of patient payment.

2) The Tax Equity and Fiscal Responsibility Act (TEFRA) hit everyone between the eyes, but "slammed" the medical care field especially hard. Most physicians feel this is a result of the government being compelled to do something urgent and monumental in nature to deal with rising health costs. The quality of patient care and scientific medicine will ill be served by this Act, which amounts to an administrative declaration warranted neither in law nor in medicine. Most of us feel that the increase in cost of regulation will result either in downgrading medical care or possibly simple denial of admission.

3) The Joint Commission of Accreditation of Hospitals (JCAH) put in their quarter's worth and are attempting to change the "medical staff" to "organized staff" and/or to redefine the term physician to include M.D., D.O., D.D.S., podiatrists, optometrists and chiropractors. Your trustees are vigorously opposed to these revisions and feel that these changes will: a) increase costs, b) decrease standards of hospital care, c) cause needless pain and suffering by untrained "practioners", and d) cause public confusion and misunderstanding of health care roles. ISMA members must stand by the present medical staff bylaws and consider future legal counsel representing the medical staff if and when attempts to alter the bylaws occur. WE MUST KEEP THE MEDICAL STAFF "MEDICAL".

4) The past year saw the "unfunding" (a questionable demise) of the Health Systems Agency. The dragon is not quite dead and the Health Planning Act has been extended to July 1985. The Indiana State Board of Health will probably take over the HSA functions and process the data and information supplied. Hopefully, "grass roots" local groups will be formed to supply this information and data. All this is in a state of flux.

5) Business-Medicine coalitions came to Indiana this year and have produced much beneficial discussion between the groups. No coalition has yet been formed in the Second Medical District.

6) In spite of the House of Delegates instructions in 1972 for the ISMA Board of Trustees to form an insurance company for malpractice coverage, the physicians in Indiana decided this year that they did *not* want to own an insurance company. Because of this, the Physicians Insurance Company of Ohio purchased the remaining shares and formed the American Physicians Life Company (APL). This larger, older, stable company now sells universal life, group life, professional disability income, qualified pension plans, and tax adjusted annuities. Another physician-owned company (The Physicians Insurance Company of Indiana—PICI) now offers medical professional liability insurance, office protection, home owners insurance, auto coverage and commercial/personal excess liability protection.

7) The group health insurance policy endorsed by ISMA was changed from BC/BS to Lincoln National Life last year mainly because of premium increases of 11% (Lincoln Life) vs 45% (BC/BS). During the past year, much to our delight,

Lincoln Life has supplied claims-made data to ISMA. This was a request BC/BS never honored. Unfortunately, this data indicated a 50% longer length of hospital stay for physicians and a 100% longer length of hospital stay for physicians' spouses. These members were notified. This year Lincoln Life had to raise premiums an average of 40%. (This was still lower than a comparable policy with BC/BS.)

8) This year saw the purchase of an airplane by ISMA. Cost analysis indicated that purchasing would be more economical and result in more effective travel by the ISMA officers and staff. The past six months' figures show ISMA behind the projected analysis (mainly because external leasing has not been up to projections), but we are under last year's costs and under the amount budgeted.

In summary, unfortunately, much of the above is rather negative to the practice of medicine as we know it. As our ISMA president-elect has experienced, "Everyone is trying to get 'his fair share' and many of the issues consist of very destructive interactions with physicians. Attempts are being made to relegate us to blue collar worker status, with other groups being relegated (or legislated) up to our status." We feel that all physicians must belong to and become involved with the AMA and ISMA—or maybe possibly belong to one of the major unions in the future.

I begin the next year with two thoughts: 1) How do we deal with the inevitable demand "Do more for less?" and 2) Can you name any government program that has resulted in a decreased cost by an increase in regulation?

Ralph W. Stewart, M.D.
Trustee

Third District

District meeting held on May 14 in Clarksville with Dr. Peter Livingston, secretary-treasurer, presiding over the meeting. Memorial reading was given by Dr. Livingston for Dr. Eli Goodman, our district president and also past ISMA president who died in the past year. The new officers were elected: president—Everett Bickers; vice president—Marvin Scott; secretary-treasurer—Peter Livingston; alternate trustee—Tom Neathamer.

The 1984 site for the district meeting will be in the New Albany area. There are approximately 21 members from the Third District who attended the district meeting and 10 ISMA officers and staff present. The treasurer's report indicated an estimated balance of approximately $3,600 with expected expenses to be $1,400 with an anticipated balance of $2,200. $10 dues for 1984 were established.

Dr. John Knote, ISMA president, commented on ad hoc committees and their activities on drunk driving and sports medicine. He also highlighted the VIP Program, PICI, the coalitions, legislative updates, the focus group interviews, and Joint Commission of Accreditation of Hospitals with medical versus organized staff. Dr. Paul Siebenmorgen, ISMA Board chairman, also gave a brief report as did Dr. Everett Bickers, AMA trustee, and Dr. Larry Allen, speaker. Mr. Don Foy presented a report on malpractice suits and the compensation fund.

The trustee's report indicated that there were approximately 209 members in the Third District. The other highlights included: PICI, IPLIC, legislative updates, VIP, Business Medical Coalitions, appointments for commissions and reference committees, PAC members and the upcoming annual meeting in October in Evansville.

The Blue Shield Board member from the Third District volunteered to give a Blue Shield report, but was not called upon to give such.

The evening dinner was attended by approximately 65. After enjoying the evening meal, the group was entertained by Dr. Morton Marcus, an I.U. economist.

R. G. (Dick) Huber, M.D.
Trustee

Fourth District

The 4th District held its annual meeting at the Country Club in Aurora, Ind., May 18, 1983. An excellent day was spent in golf and tennis, and dinner was well attended. Election of officers was held for the coming year. I was re-elected as trustee for the next three years, and Dr. Howard Jackson from Madison is the new president. The 4th District will hold its 1984 meeting in Madison, Ind. Dr. Baker from Aurora won the trophy for the golf outing. I wish to take this opportunity to thank the state delegation who attended our district meeting as well as all persons from Aurora who participated in planning and developing it. I look forward to seeing all the 4th District members at the meeting in Madison in 1984.

The past year in the state medical association has been very involved and busy. We have actively negotiated and developed rapport with third party carriers. Further insurance programs have been developed in association with Lincoln National Life. Our malpractice and life insurance companies have begun to gather momentum and have been growing and enlarging. We have merged with companies in surrounding states to make one large company which appears to be an excellent organization with rapidly increasing sales.

We have been deluged with medical problems associated with emergi-centers, HMOs, etc. Alternative modes to the traditional forms of medical care are being offered and will continue to be one of the major problems facing organized medicine in the next few years. I hope the ISMA will be actively involved in monitoring such programs. I am looking forward to serving as trustee again for the 4th District and dealing with these problems.

Mark M. Bevers, M.D.
Trustee

Fifth District

The trustee of the 5th District has been serving as chairman of the Board of Trustees for the past two years and consequently the report of this trustee will be found primarily in the report of the chairman of the Board. Please read it for the information as to the activities of the 5th District trustee.

At press time, the 5th District has scheduled its annual medical society meeting for August 31, 1983, at the Terre Haute Country Club. Tom F. Orman, M.D., president, will preside and Peggy S. Swaim, M.D., secretary-treasurer, will be handling the financial affairs. Indiana University professor Martin J. Marcus, research economist, will be the after dinner speaker.

I wish, once again, to thank the doctors of the 5th District for their participa-

tion in the various affairs of the ISMA and for permitting me to have the stimulating experience to serve as the district trustee.

Thanks also go to those who have helped so much to handle the extra patient load when I am going about the business of the Association, and to Sara Klein, our district staff representative, who has been so *beautifully helpful.*

Paul Siebenmorgen, M.D.
Trustee

Sixth District

The practice of medicine in the Sixth District of ISMA during the 1982-83 year reflected a number of influences common to our state in general. The recessionary influences continue to prevail, most notably in New Castle and Connorsville, and to a lesser degree in Greenfield, Richmond, and Shelbyville, but to some extent, throughout the district. Overall number of physicians in active practice has increased. Expanded hospital facilities have been completed in five of our communities.

The level of participation in ISMA activities remains above average, I believe, but commission and committee representation should improve.

The Sixth District annual meeting was hosted by the Hancock County Medical Society in Greenfield at the local country club this past May. We are indebted to Dean Felker, M.D. for his efforts. Lee Corso furnished the evening entertainment and was excellent. The business session was well attended by state staff and officers who discussed pertinent medical-political subjects.

The officers for the 1983-84 year elected were as follows: president, Wylie McLaughlin, M.D., New Castle; vice-president, Dean Felker, M.D., Greenfield; and secretary-treasurer, Douglas Carter, M.D., Shelbyville. Clarence Clarkson, M.D., Richmond, was re-elected to serve as alternate trustee.

Clarence Clarkson and I continue to represent your interests at the regular Board of Trustees meetings and special sessions as well as the annual meeting.

Davis W. Ellis, M.D.
Trustee

Seventh District

In the past, our Seventh District trustee report has concentrated on the activities of our district meeting. Unlike the past, the district meeting has not occurred prior to the deadline for submission of this report. In an effort to bring vitality to the district, substantial changes have occurred and our meeting will not take place until Aug. 17.

A completely new format for the Seventh District Medical Society meeting has been developed with the cooperation of the district officers, trustees and staff. This year's meeting will be held at the Indiana Repertory Cabaret Theatre. Although an opportunity to play golf at the Speedway Golf Course will still be provided for those who wish, the move has de-emphasized golf and the necessity to hold meetings at golf or country clubs.

The Seventh District Business Meeting will be held in the Cabaret Theatre at 5:30 p.m. During this official function, our spouses will have an opportunity to tour the theatre, guided by an IRT spokesperson, and attend a style show featuring costumes used in the theatre's numerous productions. We hope the tour and style show will be an enjoyable first attempt to provide a "spouse program." The cocktail hour will be hosted by the Williams-Townsend Agency representing American Physicians Life. Dinner will be catered by the "Brasserie," which has established a fine reputation for delicious entrees. Entertainment for the evening will be provided by a five-member group, the "T-BEARS," an a-cappella group featuring music of the '50s and '60s.

The district has specifically encouraged the participation of physicians in training and has extended a substantial discount for the evening's activities for Resident physicians.

Donald C. McCallum, M.D.
H. Marshall Trusler, M.D.
Trustees

Eighth District

This past year has been very busy in regard to activity involving important issues confronting ISMA and the private practice of medicine. Many of the items will continue to require careful attention and deliberation if we are to preserve our role in the practice of medicine.

The Eighth District Medical Society had only one meeting during the year. This was the annual meeting, which was at Portland Country Club June 15. Dr. Alfonso Lopez presided at the meeting and Dr. Frank Bonser served as secretary and gave the treasurer's report. Election of officers for the 1984 annual district meeting was conducted and Dr. Joseph Copeland was elected president and Dr. Steven Wright was elected secretary-treasurer. The meeting will be held June 7, 1984, at the Anderson Country Club.

Guests were introduced and included the following: Dr. John Knote, ISMA president; Dr. George Lukemeyer, ISMA president-elect; Dr. Paul Siebenmorgen, chairman of the Board of Trustees; Dr. Martin O'Neill, ISMA immediate past president; Dr. Lawrence Allen, speaker of the House of Delegates and candidate for ISMA president-elect; Dr. Shirley Khalouf, vice speaker and candidate for ISMA speaker of the House of Delegates; Dr. Herbert Khalouf, chairman of the Executive Committee; Don Foy, ISMA executive director; and Howard Grindstaff, ISMA field representative.

The meeting was well attended and a variety of topics were discussed. An update on Blue Shield's V.I.P. plan was given. Discussion occurred regarding Delaware-Blackford Medical Society's resolution calling for an emergency session of the House of Delegates for the purpose of authorizing funding of an educational campaign opposing federal intervention in medical care. It was the opinion of Dr. Knote that specific recommendations needed to be proposed and that an emergency session was probably not feasible at the present time.

Following the business meeting a very good dinner was served. Dr. Otis Bowen concluded the evening with a thought-provoking speech regarding the role of the physician in medicine's future.

I again wish to solicit your views in the coming year as I attempt to represent the district at ISMA and carry out the duties of district trustee. In view of the many efforts to change medical practice, unity and participation of all physicians becomes more necessary to preserve the high standard of care we presently enjoy.

Richard L. Reedy, M.D.
Trustee

Ninth District

This has been a very successful and gratifying year for 9th District physicians. We have again been very fortunate to have John Knote, M.D., of Tippecanoe County

as president of ISMA. We are all grateful for his dedicated leadership. Also highlighting the year was the district meeting held June 6 with Clinton County as our host society. Attendance for the entire day's activities indicated that physicians in our district are interested in learning about and participating in ISMA activities.

During the business session, we were updated by ISMA officers, staff and commissions relating to malpractice claims, types of insurance offered to members, AMA activities, as well as ISMA Public Relations and Ad Hoc Sports Medicine commissions. Dr. Knote outlined plans for the upcoming annual meeting and reported on some of his activities as ISMA president. Dr. Adrian Lanning of Hamilton County, after serving the district well during the past year as alternate trustee, was elected for a three-year term.

After an excellent dinner served by the Frankfort Country Club, staff members and guests were honored to hear an address by Dr. George Lukemeyer, ISMA president-elect.

Jasper County was selected as host society for our next district meeting in June 1984.

I have enjoyed meeting with many county societies this past year and serving as trustee. One of my objectives remains to seek and obtain a broader participation of members in ISMA activities and increased support for IMPAC.

Max N. Hoffman, M.D.
Trustee

Tenth District

At the annual meeting of the Indiana State Medical Association held last October 17, 15 of the 18 voting members eligible were present at the convention, including three from Porter County.

The major activity of the year centered upon participation in the Business-Medicine Task Force, which deals with health care costs in northwest Indiana. Out of this group, the Emergency Room Study Committee evaluated emergency room costs in local hospitals. The Business-Medicine Task Force consists of 22 employers, representing 70,000 employees, one of the largest statewide business-medicine task forces.

Dr. Felix Milan, representing the Commission on Physician Impairment, personally and directly contacted each area medical society and hospital to deal with developing and implementing this program in our county.

On March 22, 1983, a TEFRA seminar was held at the Lake County Public Library, and was open to all 10th District members.

The 10th District annual meeting is scheduled for Sept. 22, 1983, at the Woodmar Country Club in Hammond. The annual meeting will include, among other things, a golf outing. Election of the trustee will take place at that time.

The 10th District Governmental Affairs Committee remained active throughout the Legislature. Members of the committee visited state legislators at our weekly meetings.

Charles D. Egnatz, M.D.
Trustee

Eleventh District

The Eleventh District meeting was hosted by Carroll County, aboard the Madam Carroll on Lake Freeman. The business meeting was well attended by the ISMA official family and staff. We of the district appreciated their attendance and participation. This was followed by dinner and a most entertaining speaker. Our thanks to Carroll County for a most enjoyable meeting. Next year's meeting will be hosted by Wabash County.

The Board has had another busy year dealing with the multiple items which affect each of us. Among the many items considered was a continuing review and comment on the new proposed regulations by the Medical Licensing Board. ISMA had testified at several public hearings on these regulations. A most time consuming item has been the Board's effort to deal with the many problems associated with the Voluntary Incentive Program. At the time of this writing it appears as if litigation may be required to settle this matter. Some of the proposed changes in the JCAH manual were of great concern. With imput from ISMA as well as many other state societies, these are being modified.

I was again privileged to serve as chairman of the Executive Committee. The Committee had a busy year dealing with many items which were referred to the Board. Declining interest rates and continually increasing costs are continually tightening the budget and the Committee has tried to keep within the budget.

I appreciate the opportunity to represent the Eleventh District on the Board of Trustees. I would like to encourage and ask for the continued input and participation of each of our members.

Herbert C. Khalouf, M.D.
Trustee

Twelfth District

Your Board of Trustees has struggled with many issues in the past 12 months. The alphabet soup of alternative forms of providing and paying for health care (DRG, IPA, UCR, HMO, PPO, VIP, par, non-par, etc.) is getting to be a lot like studying hepatitis. While the goal of these alternatives is cost containment (which has yet to be proved) the unmistakable price is the further erosion of the doctor-patient relationship.

The VIP issue has occupied a great deal of the Board's time throughout the year. As of the time this report was written, I believe we have made significant progress in protecting the rights and freedom of the non-participating as well as the participating physician. This has not been a painless effort.

In the near future implementation of the DRG prospective pricing program will begin. I predict this will have more of an impact on the practice of medicine than anything since the Medicare law was passed. Although the New Jersey prospective pricing experiments were similar to the DRG law, there are many differences. Essentially, the DRG program consists of an experiment over the next three years on a national scale. The ripple effect of cost shifting is certain to have an impact on everyone.

UCR-usual and customary or reasonable no longer is. It no longer reflects the actual charges made by most physicians. UCR has become what third party payers (public or private) elect to pay. It may be a percentage of the fee. It may be a fee charged several years ago. It may vary from region to region and doctor to doctor. What it certainly is, is arbitrary; it is indemnification. There is nothing wrong with indemnification but I think it is time for us to recognize that it is no longer UCR. The time has come for the insurance

industry and public payers to come up front with this matter so that the consumer can get some idea what he is buying with his insurance premium dollar.

The 12th District Medical Society annual meeting was held at the Marriott Inn in Fort Wayne on Sept. 16, 1982. Edward R. Annis, AMA past president, was our featured speaker. Thomas A. Felger, M.D. was elected alternate trustee; Robert H. Musselman, Jr., M.D., president; Antonio B. Donesa, M.D., vice-president; and Thomas D. Smith, M.D., secretary-treasurer. As of this writing, the next annual meeting is scheduled for Sept. 15 at Hall's Guest House in Fort Wayne.

I would like to express my thanks to the membership of the 12th District for electing me to serve as trustee. I also want to thank an excellent ISMA staff for their helpful assistance throughout the year.

Michael O. Mellinger, M.D.
Trustee

Thirteenth District

The 13th District Medical Society remained an important, yet relatively quiescent, vehicle for physicians this past year. The primary event was the very successful 1982 annual meeting held at Michigan City's Potawatomi Country Club. Applause to our hosts, Dr. Donald Weninger, president, and Dr. John Luce, alternate trustee, and the members of the LaPorte County Medical Society. The business meeting was well attended with the election of the following officers: president, Dr. Donald Minter; president-elect, Dr. Richard Green; secretary-treasurer, Dr. Donald Smith. Dr. Edward Annis, the after dinner speaker, was extremely inspirational, with all in attendance proud they were in the medical profession.

This year's annual meeting will be held Sept. 14 at Elcona Country club, hosted by the Elkhart County gang. A full day of activities are planned, including golf, spouses' program, multiple prizes, exciting dinner and a guest speaker from NASA.

It appears that all of the eight counties representing the district had a busy year coping with the many issues confronting physicians throughout the country. Changes in hospital structure, administrative attitudes and physician relationships with hospitals, and overall hospital strategy changes in the '80s generated many concerns and actions on behalf of county medical societies. The traditional practice of medicine is threatened in many different ways, creating confusion, frustration, and a sense of disappointment on the part of physicians. Rising health care costs appear to be the culprit, with the doctor blamed as the etiology, yet he feels he is the victim. It is apparent that our local societies have the talent and capability to address many of the local issues and, in fact, they have begun to do so.

I will encourage the ISMA to assist its members through education and appropriate investigation of alternative systems in medical practice, methods of negotiation with hospital and third party carriers and optimization of practice management techniques to meet the new challenges before us.

IPIC has now merged into the multistate American Physicians Life Insurance Company. I am pleased to continue as an Indiana representative on the Board of Directors of this very exciting company. The merger will benefit both the ISMA and its members. APL will provide quality products specifically designed for physicians as well as provide financial rewards. The newly formed disability company, PICI, will similarly provide a needed service to its members and should be strongly supported.

I am now completing my final year as trustee for our district. The past 12 years have been most enjoyable. This position has opened up a whole sphere of friends, worthwhile projects, and an insight into many areas I could not otherwise have been able to participate in. I appreciate the advice and assistance from so many and I experienced no major controversies or problems that were not readily resolved through cooperation from all concerned. My message is simple. BE INVOLVED! The ISMA and its leaders want to do everything they can to serve its members. Please remember that our members do have diverse opinions on specific issues. It is clear that there must be a medical structure to represent the majority on the local, state and national levels. Your continued participation will assure that this process continues.

Donald S. Chamberlain, M.D.
Trustee



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The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

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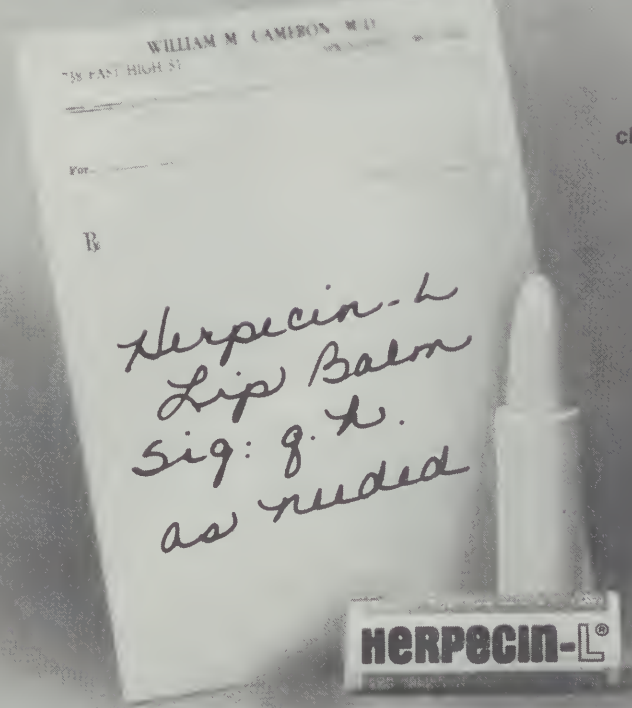
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Practicing Medicine in the Street

Exhibitor: Renate G. Justin, M.D. 1655 N. 7th Street, Terre Haute, Ind. 47804.

Attendants: Renate G. Justin, M.D., Joyce L. Shanks.

Description: All over the world there are homeless children who rummage through garbage for their meals and huddle together in doorways at night to rest and keep warm. But nowhere is the plight of these abandoned youngsters more pitful than in Bogota, Columbia, South America. A conservative estimate is that there are more than 5,000 children, from age six to sixteen, roaming the streets in Bogota, completely without access to any medical care.

This exhibit highlights, in words and pictures, the efforts of one man (who is not even a physician) and a handful of dedicated volunteers to deliver medical services in the streets to the children. A poster will define the three levels of abandonment, and another will depict the "gamin" phenomenon in a number of other countries.

The health care delivery system in the street will be poignantly illustrated with 8 x 10 pictures of the small patients and their benefactors, along with quotations from the man who started the Children in the Americas program.

Incorporated into the exhibit will be suggestions for application of street care to street people in American society, i.e., New York's "bag ladies," Skid Row derelicts, etc.

Long-Term Venous Access with Right Atrial Silastic Catheters

Exhibitor: R. M. Jager, M.D., Ph.D. 5502 E. 16th Street, Indianapolis, Ind. 46218.

Attendants: Kathy Thaney, R.N., M. S. Murali, M.D., S. Gunali, M.D. and K.M. Logie, M.D.

Description: Long-term venous access is often required in patients receiving intravenous chemotherapy for cancer and in patients with various gastrointestinal problems who need intravenous nutrition. The standard technique of percutaneous subclavian catheter insertion is associated with at least 5% incidence of mechanical complication, i.e. pneumothorax and mediastinal hematoma formation. Futhermore, the subclavian catheters cannot be managed safely in a home-care setting. Introduction of silastic catheters with a bonded Dacron cuff (Hickman, Broviac) have made the establishment of long-term venous access not only feasible and safe but also the procedure of choice. This is especially true in patients with thrombocytopenia and granulocytopenia, since both factors render establishment and maintenance of a percutaneous subclavian catheter hazardous.

We report our experience with 65 patients who had insertion of silastic catheters into the right atrium via external jugular vein or cephalic vein. The longest duration of catheter life was fourteen months. The total experience at our hospital is 2,000 patient days. The catheter required removal for various reasons in four patients, with the development of proven sepsis occurring in only two patients. Meticulous and uniform technique of other catheter placement and post-placement care, combined with specialized nursing staff is, we believe, responsible for the low incidence of catheter-related problems. The details for the technique and clinical data will be presented and standardized catheter care protocols will be distributed to interested physicians. We recommend placement of right atrial silastic catheters per cephalic or jugular vein as the technique of choice when long-term venous access is needed.

Tourette Syndrome—Clinical Experiences

Exhibitor: Donald A. Dian, M.D. Caylor-Nickel Hospital, Inc., 309 South Main Street, Bluffton, Ind. 46714.

Attendant: Ruth E. Ifer.

Description: Tourette Syndrome is a condition of multiple tics including verbal tics which occur in childhood and adolescence and usually continue throughout life. The condition is very rare, 0.1 to 0.5 per 1,000 population and because of varied clinical presentations, it is difficult to establish a diagnosis.

This exhibit will describe clinical data from 40 patients who were followed at the Caylor-Nickel Medical Center, Bluffton, Indiana. The data will include age of onset, symptoms at onset, new symptoms which presented later, pharmacological treatment and family history.

Our preliminary results indicate that age of onset predicts success of particular drug therapy and/or unacceptable drug side effects.

The display will also include a light and three-dimensional illustrations as well as free literature.

Treatment of Hemorrhoids by Infrared Photo-Coagulation

Exhibitor: R. M. Jager, M.D., Ph.D. 5502 E. 16th Street, Indianapolis, Ind. 46218.

Attendant: R. M. Jager, M.D., Ph.D.

Description: The majority of patients with first and second-degree hemorrhoids can be treated in the office with various mucosal fixation methods. The most recent addition to the office management of hemorrhoids is infrared photocoagulation technique.

A non-coherent infrared light beam generated by a halogen lamp is focused onto a quartz bundle, transmitted to the hemorrhoidal tissue through a quartz light guide and applied to the tissue through a hygrophobic polymer-coated light guide tip. This results in thermocoagulation of the hemorrhoidal mucosa and thrombosis of the surrounding vessels. The depth and diameter of destruction of tissue is regulated by varying the duration of coagulation and the diameter of the light guide tip.

The tissue destruction and resulting cicatrization will lead to mucosal fixation, preventing further prolapse of the hemorrhoidal cushions and thus relieving the hemorrhoidal symptoms. This technique has been compared to other mucosal fixation methods in various European centers in prospective randomized studies and was reported to be as effective and probably safer than techniques such as band ligation of hemorrhoids.

My experience with this technique to treat internal hemorrhoids in over 35 patients, the histologic pictures of the tissue treated by infrared photocoagulation and other pertinent details will be presented. Infrared photocoagulation is recommended as the treatment of choice for patients with first and second-degree hemorrhoids. The advantages of this technique include efficacy, ability to precisely regulate the depth and degree of tissue destruction and its safety of use in high-risk patients including patients with pacemakers and pregnant women.

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Annual Meeting: 1984, Washington
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Annual Meeting:
4—Pres: Howard Jackson, Madison
Secy: George L. Alcorn, Madison
Annual Meeting: May 1984, Madison
5—Pres: Thomas F. Orman, Terre Haute
Secy: Peggy Sankey Swaim, Rockville
Annual Meeting: Aug. 31, 1983, Terre Haute
6—Pres: Wylie G. McGlothlin, New Castle
Secy: Douglas Carter, Shelbyville
Annual Meeting: May 2, 1984, Shelbyville
7—Pres: Warren L. Gray, Martinsville
Secy: Malcolm O. Scamahorn, Pittsboro
Annual Meeting: Aug. 17, 1983, Indianapolis
8—Pres: Joseph Copeland, Anderson
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Annual Meeting: June 7, 1984, Anderson
9—Pres: Robert E. Darnaby, Rensselaer
Secy: Max N. Hoffman, Covington
Annual Meeting: June 1984
10—Pres: Vincent J. Santare, Munster
Secy: Barron M. F. Palmer, Hammond
Annual Meeting: Sept. 22, 1983, Hammond
11—Pres: Rex A. Wieland, N. Manchester
Secy: Frederick C. Poehler, Wabash
Annual Meeting: Sept. 21, 1983, Wabash
12—Pres: Robert H. Musselman, Fort Wayne
Secy: Thomas D. Smith, New Haven
Annual Meeting: Sept. 15, 1983, Fort Wayne
13—Pres: Donald L. Minter, Goshen
Secy: G. Richard Green, South Bend
Annual Meeting: Sept. 14, 1983, Elkhart

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Donald E. Wood, Indianapolis	1962	1964
Joseph M. Black, Seymour	1963	1965
*Kenneth O. Neumann, Lafayette	1964	1966
Eugene S. Rifner, Van Buren	1965	1967
*G. O. Larson, LaPorte	1966	1968
Patrick J. V. Corcoran, Evansville	1967	1969
Lowell H. Steen, Hammond	1968	1970
Malcolm O. Scamahorn, Pittsboro	1969	1971
Peter R. Petrich, Attica	1970	1972
James H. Gosman, Indianapolis	1971	1973
Joe Dukes, Dugger	1972	1974
Gilbert M. Wilhelmus, Evansville	1973	1975
Vincent J. Santare, Munster	1974	1976
John W. Beeler, Indianapolis	1975	1977
*Eli Goodman, Charlestown	1976	1978
*James A. Harshman, Kokomo	1977	1978
Arvine G. Popplewell, Indianapolis	1978	1980
Alvin J. Haley, Carmel	1979	1981
Martin J. O'Neill, Valparaiso	1980	1982
John A. Knote, Lafayette	1981	1983

*Deceased

CME QUIZ
Antibiotics . . .

CONTINUED FROM PAGES 573-578

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Div. of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. The cephalosporin effective in treating enterococcal infections is:
   a. Cephalothin
   b. Cefamandole
   c. Moxalactam
   d. None of the above

2. Which of the following is preferred for treating *Bacteriodes fragilis* infections?
   a. Cefotaxime
   b. Cefoperazone
   c. Cefoxitin
   d. Cephalothin

3. Over 90% of all but one of the following organisms are susceptible to moxalactam and cefotaxime:
   a. *E. coli*
   b. Klebsiella
   c. Pseudomonas
   d. Enterobacter

4. Which of the following drugs is preferred for treating coagulase-positive staphylococcal infections?
   a. Piperacillin
   b. Moxalactam
   c. Cefoxitin
   d. Cephalothin

5. Ticarcillin or carbenicillin is active against most strains of all but one of the following organisms:
   a. *E. coli*
   b. Enterobacter
   c. Pseudomonas
   d. Serratia

6. Mezlocillin and piperacillin are active against most strains resistant to ticarcillin and carbenicillin, of which are the following bacteria:
   a. Pseudomonas
   b. Klebsiella
   c. *E. coli*
   d. Enterobacter

7. Which of the following drugs is the preferred treatment for Klebsiella Meningitis?
   a. Cephalothin
   b. Piperacillin
   c. Cefamandole
   d. Moxalactam

8. Which of the following antibiotics is the preferred drug for community acquired pneumonia?
   a. Cephalothin
   b. Gentamicin
   c. Cefoxitin
   d. Moxalactam

9. Which of the following organisms is most likely to be resistant to tobramycin and gentamicin?
   a. *E. coli*
   b. *Proteus mirabilis*
   c. Serratia
   d. Coagulase-positive staph

10. Which of the following antibiotics has the fewest resistant organisms of the *Bacteriodes fragilis* group?
    a. Piperacillin
    b. Moxalactam
    c. Cefotaxime
    d. Metronidazole

JULY CME QUIZ Answers

Following are the answers to the CME quiz that appeared in the July 1983 issue of THE JOURNAL: "The Search for Curable Forms of Hypertension: Who, When and How," by Myron H. Weinberger, M.D.

1. a	6. d
2. c	7. b
3. b	8. a
4. b	9. a
5. d	10. d

Answer sheet for Quiz: (Antibiotics. . .)

1. a b c d	**6. a b c d**
2. a b c d	**7. a b c d**
3. a b c d	**8. a b c d**
4. a b c d	**9. a b c d**
5. a b c d	**10. a b c d**

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for this month's quiz, send your completed, signed application before Oct. 10, 1983 to the address appearing at the top of this page.

NEWS NOTES

Merck Manual

The new 14th edition of the Merck Manual is available. It features more than 2,500 pages, covering 1,500 subjects in 291 chapters logically arranged and thumb-indexed for easy accessibility.

The book sells for $19.75 (complete text in hardcover), $11.95 (Vol. I, General Medicine, in softcover), or $6.95 (Vol. II, Obstetrics, Gynecology, Pediatrics and Genetics, softcover).

The address is Merck & Co., P.O. Box 2000, Rahway, N.J. 07065.

AMA Family Medical Guide

The AMA and Random House have cooperated to produce *The American Medical Association Family Medical Guide*, described as the most authoritative, comprehensive and useful book of its kind for use in the home.

The book gives instructions to aid in deciding when to visit the doctor and when to treat a condition at home. The 832-page volume devotes 162 pages to Self-Diagnosis Symptom Charts.

It is available on a 15-day free examination basis by writing to Random House, 6 Commercial St., Hicksville, N.Y. 11801. Although the price is $24.95, the book may be purchased in three monthly installments of $8.32 each.

With the Medical Guide comes a $4.95 retail value Random House Dictionary, Concise Edition, which is to be kept free whether or not the Medical Guide is purchased.

Free Newsletter Offer

"Human Services News," a quarterly newsletter covering current information and educational materials for "caregivers," is available on a complimentary basis.

Although subjects covered range from the physical and emotional health of adolescents to aging, one major focus of the newsletter is personal loss, grief and grief therapy.

Write to Human Services News, Box 2423, Springfield, Ill. 62705.

Foreign Study Tour

Travel Reps, Inc., 435 S. Broadway, Santa Ana, Calif., will conduct a Public Health Study Tour to China, Russia, Finland and Sweden from Oct. 13 to Nov. 4.

The tour is open to health care professionals nationwide. Cities visited will include Beijing, Nanjing, Shanghai and Xian (China), Kieu, Leningrad & Moscow (Russia), Helsinki (Finland) and Stockholm (Sweden). Tour is sponsored by The Health University, a voluntary, non-profit educational organization in central Florida. Tour leader is Dr. Frederick W. Hering, Health University president.

For more information write to Travel Reps or call collect (714) 973-4844.

ACC Outreach Program

Dr. Charles Fisch, Indianapolis, is a co-author of an outreach educational program on "Electrocardiography of Arrhythmias" for the American College of Cardiology.

Enrollees will receive one section of the program each month for 13 months. Each section will consist of an in-depth printed discussion, 5-9 illustrative reproductions of the EKG tracings, and a detailed analysis of the records. The cost for this home-study program is $150 for College members and $175 for non-members.

Write to ACC, 9111 Old Georgetown Road, Bethesda, Md. 20814.

ISMA Convention

ISMA reminds members that the 1983 annual convention will be held Oct. 14-17 at the Executive Inn in Evansville.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Arregui, Maurice E., Indianapolis
Baker, John R., Lafayette
Bastnagel, William F., Indianapolis
Byrne, Frank D., Fort Wayne
Cabaluna, Claudia C., Fort Wayne
Cespedes, Carlos A., Griffith
Chen, James J., Munster
Conway, Thomas J., Terre Haute
Crisman, Ted J., Fort Wayne
Griffith, Richard G., Indianapolis
Hines, James R., Warsaw
Holajter, David M., Evansville
Hunter, Harry L., Evansville
Johnson, Stephen M., Indianapolis
Jones, Anabel R., Lafayette
Kappelman, Marc R., Carmel
Lee, Thomas M., Hartford City
McCoy, Melvin H., Evansville
Peters, Elmer E., Brookville
Powers, William R., Lyons
Rahdert, Richard F., W. Lafayette
Retson, Nicholas C., Merrillville
Saylors, Rodger D., LaPorte
Schultheis, Thomas E., Indianapolis
Simmons, James E., Indianapolis
Underhill, Harold W., Danville
Wagner, Lindley H., Lafayette
Wilkinson, John R., Muncie
Young, Robert L., Munster

Here and There . . .

. . . **Dr. Joseph A. Frederick** of Logansport has been named Indiana's Catholic Layman of the Year by the Indiana Knights of Columbus.

. . . **Dr. Jerry R. Meyers** of Noblesville, competing in the 45-49 age group, won silver medals in the 50, 100 and 200 yard freestyle events of the YMCA Masters National Swimming and Diving Championships in Chicago.

. . . **Dr. Thomas C. Brown** of Vincennes discussed lung cancer during the June meeting in Vincennes of Families Facing Cancer.

. . . **Dr. John A. Knote**, ISMA president, has been elected to the steering committee of the Organization of State Medical Association Presidents (OSMAP).

. . . **Dr. Robert C. Beeson** of Anderson, 28, was scheduled to participate in last month's bicycle Race Across America, a 3,500-mile trek from California to New Jersey. In May he finished third in the 800-mile John Marino Open in California, completing the distance in 57 hours.

. . . **Dr. Robert E. Hannemann** of Lafayette has been presented the Dr. Irvine R. Rosenbaum Award for Community Development by the Indiana chapter of the American Academy of Pediatrics.

. . . **Dr. Richard Feldman** of Beech Grove has been appointed medical consultant to St. Francis Hospital Center's new Family Resource Center.

. . . **Dr. Marvin E. Mishkin** of Elkhart has been named a fellow of the American College of Physicians.

. . . **Dr. Yu Hong Law** of Valparaiso, chief surgeon at Starke Memorial Hospital, discussed "Various Cancer Sites, Symptoms, Detection and Treatment" during a July meeting of Families Facing Cancer.

. . . **Dr. Hany Haddad** of Indianapolis has received Community Hospital's Physician of the Year Award for his contributions to the hospital's medical education program.

. . . **Dr. Panayotis G. Iatridis** of Gary has been named board president, American Lung Association of Northwest Indiana.

. . . **Dr. Frank J. Amodio** of Evansville has been presented the Arthur Griep Mentor Award by St. Mary's Medical Center for "excellence in instruction" to the hospital's medical residents.

. . . **Dr. William K. Nasser** of Indianapolis has been named by Governor Robert Orr to a four-year term as a trustee of Indiana State University.

. . . **Dr. Garry L. Bolinger** of Indianapolis and **Dr. John E. Pless** of Bloomington, pathologists, have been named by Governor Orr to the Commission on Forensic Sciences.

. . . **Dr. Harold G. Nichols** of Indianapolis has been appointed mental health program director for the Tri-County Mental Health Center, Carmel.

. . . **Dr. Richard G. Huber** of Bedford received a certificate of recognition honoring his completion of a six-year term on the South Central Mental Health Center board of directors.

. . . **Dr. Brockton L. Weisenberger**, medical director of the Cummins Engine Co., Columbus, has been elected president of the Central States Occupational Medical Association.

. . . **Dr. Peter L. Stevenson** of Evansville has been named director of Emergency Medical Services at Deaconess Hospital.

. . . **Dr. Frederick B. Stehman** of Indianapolis has been designated a co-investigator for the Radiation Therapy Oncology Group research effort at the Indiana University Medical Center.

. . . **Dr. Robert N. Hunt** of South Bend has been elected to membership in the Infectious Disease Society of America.

. . . **Dr. John W. Beman** of Evansville has become president of the medical staff at Welborn Baptist Hospital; **Dr. Leon J. Stoller** is president-elect, and **Dr. James R. Krueger** is secretary-treasurer.

Child Abuse Report

The National Committee for Prevention of Child Abuse (NCPCA) has just completed a 3½-year evaluation of 11 different prevention of child abuse strategies around the country. The final report is now available.

Titles include: What Have We Learned About Preventing Child Abuse: An Overview; Perinatal Intervention; Culture-Based Parent Education Programs; Public Awareness and Education Using the Creative Arts; and Community-Wide Education Information and Referral Programs.

For price and ordering information, contact NCPCA, 332 S. Michigan Ave., Suite 1250, Chicago 60604.

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'Heartbeat' to Air Nationally

"Heartbeat," a half-hour public education television series produced in cooperation with the Indiana State Medical Association, is scheduled to premiere nationally this fall on the Public Broadcasting Service (PBS).

The first 13-week series of "Heartbeat" programs was produced by Custom Video Corporation of Fort Wayne in cooperation with the Fort Wayne/Allen County Medical Society. These programs were aired locally on commercial television.

Last year, Custom Video approached the ISMA with a proposal to film 13 more segments under ISMA sponsorship. Since the original series was so well received by the public—and subsequently selected for the annual ISMA Journalism Award—the Association decided to join with other interested state agencies in financially backing a second 13-week series.

Marilyn Moran Townsend of Custom Video, a recipient of three previous awards for medical documentary work, is executive producer of the new series.

The ISMA Public Relations Commission is charged with reviewing scripts for medical accuracy before production. The scripts are prepared by Custom Video with the input and cooperation of sponsoring agencies.



Dr. John A. Knote, ISMA president, and Marilyn Moran Townsend, "Heartbeat" executive producer, check over final script changes before taping program introductions and closings.

PHOTO BY JOYCE WOLF

To reinforce ISMA's role, taped public service messages from the ISMA president introduce and close each "Heartbeat" segment.

The series delivers medically based information in an entertaining format through roleplays and re-enactments, and it involves extensive taping of medical procedures and surgeries. It focuses on common concerns, medical innovations to deal with them, and practical information for the health consumer.

"Heartbeat" topics include arthritis, breast cancer, weight control, heart attacks, diabetes, reconstructive surgery, alcohol abuse, stress, smoking, exercise, nutrition, genetics, pre-natal health, sexual assault, and adolescent health.

The first nationally televised program is scheduled to air this fall on PBS. Check local listings for specific air times.

Comments or suggestions should be directed to the Public Relations Department, ISMA.

'Heartbeat' Sponsors

The following organizations/agencies have joined the ISMA in financially sponsoring "Heartbeat" programs:

- State Board of Health
- Blue Cross/Blue Shield of Indiana
- Department of Mental Health
- Governor's Council on Physical Fitness
- Parkview Memorial Hospital
- Dietetic/Dairy Council
- March of Dimes
- Department of Maternal and Child Health
- Lincoln National Life Insurance Co.

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QUESTIONS AND ANSWERS ABOUT EPSDT--

EARLY AND PERIODIC SCREENING, DIAGNOSIS AND TREATMENT

Prepared by:
Department of Public Welfare
State of Indiana
100 North Senate Avenue
Indianapolis, Indiana 46204

Over the last several weeks, some of you may have been contacted about a program to enhance health services to children from low-income families in Indiana. This program--EPSDT (Early and Periodic Screening, Diagnosis and Treatment)--is going to receive renewed emphasis in Indiana now that the Department of Public Welfare has entered into a contract with Automated Health Systems, Inc. (AHSI), a firm well experienced in the statewide administration of publicly funded health programs.

AHSI has learned that a primary factor crucial to the success of any state's EPSDT program is the development of a network of informed and satisfied health providers. To this end, we are presenting the questions most often posed by health professionals about EPSDT:

Q: Who is eligible to receive EPSDT services?

A: Any Medicaid-eligible child under the age of 21.

Q: How did EPSDT originate?

A: Major studies conducted during the early and mid-1960s demonstrated that permanent harm was done to children of economically disadvantaged families because health problems were not detected and treated in early stages of development. In response to this concern, Congress in 1967 passed an amendment to the Social Security Act that required states to include in their Medicaid plans a program of Early and Periodic Screening, Diagnosis and Treatment for Medicaid-eligible infants, children and adolescents.

Q: What is the purpose of EPSDT?

A: EPSDT provides comprehensive, quality, preventive and treatment health services to poor children whose health care is too often characterized by episodic, crisis-oriented treatment. The overall goal of EPSDT is the promotion of health and the prevention of disease in economically disadvantaged infants, children and adolescents. Its objectives are to:

*contact all eligible families and facilitate their children's participation in EPSDT

*screen (through tests and observation) all enrolled children to find unmet health needs

*provide diagnostic services for "at risk" children

*provide children with needed treatment services, including referral to specialists

*promote primary preventive measures to these children as well as identify and treat as early as possible any existing health needs.

Q: What health services are provided under EPSDT?

A: The federal guidelines mandate periodic (and age-appropriate) evaluation of an eligible child's physical, dental and mental health status, and subsequent treatment or corrective measures as needed. (The evaluation techniques and age-based schedules for the periodicity exams are covered in the EPSDT Provider Manual available through AHSI.)

Q: How does this differ from traditional screening programs such as well child conferences and school health programs?

A: EPSDT will provide better preventive and curative services than those currently offered under "traditional" screening auspices (well child conferences, school health programs) as well as diagnostic and treatment services beyond the perimeters of those approaches. The scope of many screening services available through community groups is frequently dictated by the ease of screening procedures rather than an orientation toward uncovering serious, treatable conditions; similarly, the types of health services offered by health departments and school systems are essentially preventive in nature.

Screening programs further are seldom located in settings related to diagnostic and treatment sites. This is a drawback in that a sizable number of patients fail to follow-through the planned referral, a situation aggravated by fragmenting the delivery process. The separation of screening from treatment and preventive from curative services undermines the whole continuity of care premise so crucial to quality health services.

By contrast, EPSDT provides entry into the health care delivery system and supports continued interaction with the same provider.

Q: How does EPSDT differ from Medicaid?

A: Unlike Medicaid, EPSDT keeps track of each child who receives health services under its auspices. As a result, there is improved continuity of care, services are more comprehensive and appropriate,

and quality case management (of great concern to health providers) is promoted.

Q: What is the fee schedule for EPSDT services?

A: The reimbursement for an initial evaluation is $35; for a subsequent (periodic) exam, the amount is $15 for a child under age 2, and $25 for older children.

Q: Who actually has the responsibility for managing EPSDT?

A: The federal Department of Health and Human Services administers EPSDT, but each state is free to determine the specific administrative nature of the program. In Indiana, the Department of Public Welfare has contracted with AHSI to manage our state's EPSDT program.

Q: Who is responsible for determining a child's eligibility?

A: Eligibility for EPSDT is determined by the Indiana Department of Public Welfare, which passes this information on to the AHSI, the contractor for the program's administration. Outreach workers from AHSI then contact eligible families and explain program benefits to them.

Q: What is AHSI?

A: Automated Health Systems, Inc. is a non-profit health management corporation with headquarters in Pittsburgh. Locally, AHSI's address is 3901 W. 86th St., P.O. Box 689119, Indianapolis 46268--(317) 875-7100 or (800) 732-1446. AHSI also is currently under contract to Maryland and Pennsylvania to administer their respective EPSDT programs. The tasks of these contracts generally cover the spectrum of EPSDT objectives: outreach and informing activities to Medicaid-eligible families, recruiting health providers and assisting them in all phases of EPSDT, patient case management, referral, follow-up, and data processing.

Q: Does AHSI have any first-hand experience in providing health services?

A: Yes. In addition to its management functions, in Pennsylvania AHSI delivers dental services to some EPSDT recipients, has a mobile screening program for use in underserved areas, and conducts a statewide EPSDT Blood Lead Testing Program.

AHSI's capabilities are highlighted by past performance:

*Prompt invoice processing is critical to maintaining a quality service delivery network; after AHSI assumed Pennsylvania's EPSDT contract, approved invoices from private providers were raised from 60% to 90%.

*When AHSI became the contractor in Maryland, few private providers

were involved in EPSDT; now there is an effective private provider delivery system of 110.

Q: How will Indiana's EPSDT program differ from other government-funded health programs?

A: In an American Academy of Pediatrics report on past EPSDT programs, providers cited problems such as lack of communication with EPSDT administrators, paperwork confusion, and delayed payment for services.* AHSI's expertise in publicly funded health services has led to significant advances in these areas.

Creating and maintaining a network of satisfied providers is recognized as a critical, ongoing task. Because of the awareness of the importance of field work, AHSI staff regularly visit and are responsive to the EPSDT, especially in the completion of forms streamlined by AHSI. Speedy reimbursement for services is further facilitated by a totally "debugged" and computerized data processing system.

Q: Whom should I contact to learn more about becoming affiliated with EPSDT?

A: For more information on providing EPSDT services, please contact Automated Health Systems, Inc., 3901 W. 86th St., P.O. Box 689119, Indianapolis, Ind. 46268--(317) 875-7100 or (800) 732-1446, or Ms. Arlene Stratton, Department of Public Welfare, Room 702, State Office Building, Indianapolis, Ind. 46204--(317) 232-4315.

In the near future, AHSI will be contacting potential EPSDT health providers. Because of the dramatic and positive impact this partnership between government and health professionals can have on Indiana's children, ISMA members are urged to seriously consider joining the EPSDT program.

* American Academy of Pediatrics: Increased Professional Provider Participation in State and Local EPSDT Program. Medical Services Administration, SRS, HEW, Washington, D.C., June 30, 1976, p.13.

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What Was Indianapolis City Hospital
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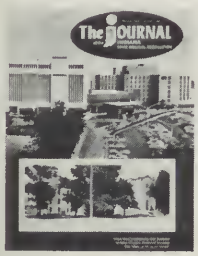
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ABOUT THE COVER

The original Indianapolis City Hospital (now Wishard Memorial Hospital, the state's oldest teaching hospital) is shown in this turn-of-the-century photograph. For details about the original hospital and its founder, Dr. Livingston Dunlap, see this month's "Medical Museum Notes," page 657.

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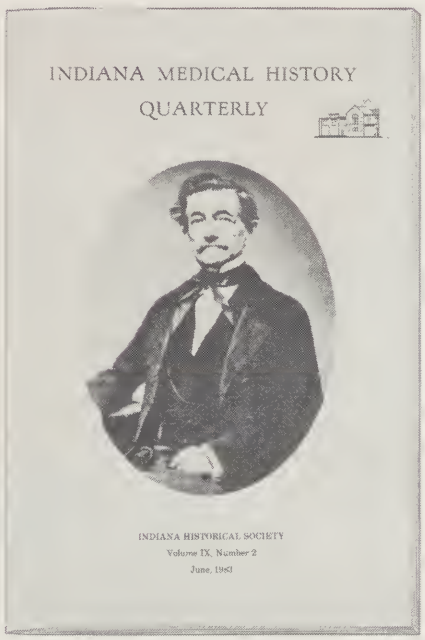
THE OLDER PHOTOGRAPH on the front cover was reproduced from page 23 of the 1902-03 Catalogue of the Central College of Physicians and Surgeons. It shows the turn-of-the-century appearance of Indianapolis City Hospital (the state's oldest teaching hospital), which was razed a few years later.

Illustrated on this page is the June 1983 issue of the *Indiana Medical History Quarterly** which is devoted entirely to this venerable old teaching institution, covering its history from 1833 to 1866. This is the first time, to my knowledge, that this aspect of the hospital's history has been done using primary source material. The article was written by Katherine Mandusic McDonell, Medical Research Historian at the Indiana Historical Society, and Curator of the Indiana Medical History Museum. The very limited segment covered in this Quarterly explains how the hospital proceeded from an innovative concept in the early 1830s to a reality in the late 1850s.

Mrs. McDonell made use of the original City Council records, all the local newspapers of the era, in addition to the documented recollections of the physicians associated with the hospital durings its initial years.

The hospital was the brainchild of Dr. Livingston Dunlap (see photo). His dual role as private physician and long time member of the City Council enabled him to plan, promote, and promulgate the hospital concept.

This concept was ahead of its time for Indiana. Dunlap advocated a hospital for the acutely ill. He was not interested in a pest house or alms house, which were in common use in many American cities at the time, and which segregated the chronically ill, the insane, and the indigent poor all under one roof.



Livingston Dunlap, M.D., (1799-1862), first president of the Indiana State Medical Association, is depicted on the June 1983 cover of the Indiana Medical History Quarterly.

Dunlap's concept was modern, but when the hospital was finally constructed the city was not ready for it. It thus became occupied briefly by vagrants and prostitutes, and was then labeled by critics as "Dunlap's Folly."

With the outbreak of the Civil War, however, the building was pressed into service as a military hospital; and following the War (August 1866) it was finally opened to the public, and has been in operation continuously since. During the first month of operation 14 patients were admitted, with an average per diem cost of $1.73. By October 1866 this daily cost had been reduced to 86 cents per patient.

All has not been sweetness and light. The hospital has received its share of criticism over the years. In many instances, as with the state's mental hospitals, this can usually be traced to the problem of chronic underfunding. In other instances, the criticism can be of a useless nagging character, as for example in 1911 when numerous articles appeared in the daily papers complaining of the slow and inefficient ambulance service provided by a Waverly electric machine. The Waverly Company itself took exception to this, and using the city's own books, proceeded to show in rebuttal that the ambulance cost less to buy, was more efficient, had fewer breakdowns, cost less to maintain and operate, and had held up better than any vehicle the city had purchased before or since. This stopped the complaints about the ambulance service.

A more serious problem, which led to front page news and to reprimands on the editorial page, occurred in 1904, when two nursing students inadvertently used strong carbolic acid solution for enemas. The two deaths that resulted from this error were blamed on every public official the editors could conceivably name, including the governor himself.

The hospital's long role of service to the community, and to the state, through its training of nurses and medical students, is the essence of its history. And this involved numerous and dedicated people who, like Dr. Livingston Dunlap and his successors, Dr. John Kitchen and Dr. Patrick Henry Jameson, and others gave generously of their time and talent.

Biographies of these and others are planned for future publications, as is another installment in the history of Indianapolis City Hospital (now Wishard).

*Published by the Indiana Historical Society, 315 West Ohio Street, Indianapolis, Indiana 46202.

WHAT'S NEW?

Technicare Ultrasound has published a four-color brochure on each of their three linear array systems. The 210F, 256 and 246 are all highly versatile systems with excellent image quality. Each model varies with the other two in weight, portability and in specific abilities. The brochures are available for determining which model is appropriate to any given situation.

Silcraft Corporation markets the BATHER, a bathing facility designed for the elderly and physically handicapped. It is compact and incorporates a tub, sit-down shower, sitzbath and whirlpool. It has a side opening, a vertically sliding door, which admits the patient without the use of hoists or other difficult maneuvers. Installation is easy and inexpensive.

Patell-Ease Corporation has a new support strap that relieves the pain of chondromalacia of the patella. The strap weighs only one ounce and is worn under the clothing and placed just below the patella. It may also be used in patello-femoral arthritis and in treatment of Osgood-Schlatter disease.

Medical & Scientific Designs, Inc. announces new Phase II Digoxin assays which require 22 minutes from pipeting to printout and require no sample pretreatment. Fast turnaround for this RIA allows its use for routine applications and stats.

Racal Airstream, Inc. introduces a breakthrough in personal protection which provides a cost-effective method of increasing industrial productivity. BREATHE-EASY Systems combine positive pressure and cartridge filtration of gases, vapors and particulates. A Turbo Unit, powered by a rechargeable battery pack, draws in contaminated air, runs it through filtration cartridges and then through the breathing tube and into the headpiece. Five Breath-Easy headpieces offer combinations of head, eye and face protection.

The C. B. Fleet Company makes a new at-home test kit for detecting occult blood in a stool specimen. The name is "Fleet Detecatest." It is sold over-the-counter. The testing may be done at home and the results may be read by the patient and reported to the doctor.

Burroughs Business Systems Division offers Write-it-Once™ recordkeeping systems for the health care office. One writing creates a charge ticket, updates the patient's statement, posts the daily record of charges and receipts and prepares a bank deposit ticket. Reduces clerical posting time by as much as 75%. Eliminates transposition errors.

Hewlett-Packard's new ECG machine logs management information and stores traces. Up to 40 electrocardiograms may be stored and recalled at any time. Patient identification information is entered directly on the report.

O-Two Systems International sells a portable oxygen-powered ventilator resuscitator/inhalator which is safe and efficient and replaces manually operated hand-held bags and mouth-to-mouth resuscitation. It is designed for emergency ambulatory settings and hospital uses. As the patient begins to breath, the valve may be changed without change of equipment, and the device functions as an inhalator instead of a ventilator.

The American Society for Testing and Materials (ASTM) has issued "Standard Specification for Eye Protectors for Use by Players of Racquet Sports." The need for specifications for eye protectors was highlighted three years ago by the National Society to Prevent Blindness. Four types of protectors are listed in the specifications. Eye protectors meeting the specifications will be clearly marked. Players are urged by the society to buy and wear protective devices manufactured according to the ASTM standards.

Serono Diagnostics has a new Magnetic Antibody Immunoassay diagnostic kit called TSH-MAIA for determining levels of thyroid stimulating hormone.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Safeguard Business Systems has a new office filing method called the Color Sentry ® Color Coded filing system. The design is based upon research which indicates that the human eye recognizes colors, faster and from a farther distance, then it does letters and numbers. It reduces the time it takes to locate a file and almost eliminates a search for a misfile. Color Coding may be applied to three filing formats—Alphabetical, Numeric, and Terminal.

Schering announces a new antibiotic, Netromycin (netilmicin sulfate), an aminoglycoside with the same spectrum of activity as gentamicin and tobramycin but with the advantage of very low risk of nephro- and ototoxicity. It is effective primarily against gram-negative organisms, and also some gram-positives. The dosage is calculated according to body weight and can be administered either intravenously or intramuscularly.

Isopedix Corporation has received FDA approval for marketing PROSET™, a casting and support system. The PROSET cast is a firm, light-weight synthetic material that simultaneously sets and conforms to the injured area following the application of dry, warm air. The cast is "breathable" and promotes drying of the skin beneath the cast.

The 3M Company has a 10-minute videotape that discusses the use of a semi-permeable film dressing when the scalp is used as a skin-graft donor site. Clinical studies show that healing time is decreased dramatically when donor sites are covered with vapor-permeable dressings. Donor sites protected by Tegaderm dressings were completely healed and ready for reharvest in 4.7 days.

Woodroof Laboratories has a temporary wound dressing designed for burns, clean superficial wounds, donor sites, excised wounds, meshed autografts and general wound management. It comprises an occlusive semi-permeable silicone membrane mechanically bonded to a nylon fabric and coated with peptides of collagen which make the product act as a biological dressing.

CONTINUED ON PAGE 660

BROWN THE BROWN PHARMACEUTICAL CO., INC.
2500 West Sixth Street, Los Angeles, CA 90057

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Android®/5 mg. Buccal/10 mg. Oral/25 mg. Oral
Methyltestosterone U.S.P. Tablets

ANDROID®/F
Fluoxymesterone U.S.P. Tablets, 10 mg.





WHAT'S NEW?

CONTINUED FROM PAGE 658

For those who do bent-leg sit ups, there is a device which slips under a leg of the bed or other furniture for holding the feet in proper position, heels pressed to the floor and insteps restrained. It weighs only three ounces—fits into a briefcase, goes wherever the owner goes. Wide loops of soft webbing restrain the feet.

Abbott Laboratories announces the introduction of Panhematin (hemin for injection) for treating acute attacks of porphyria. Panhematin was approved by the FDA under the human orphan drug program. Panhematin is indicated for the amelioration of recurrent attacks of acute intermittent porphyria temporally related to the menstrual cycle in susceptible women. Panhematin is not indicated in porphyria cutanea tarda.

AVI, Inc., manufacturer of volumetric infusion pumps, announces a full line of IV administration sets. The disposable administration sets are designed to facilitate continuous, non-pulsatile fluid delivery when used with the AVI volumetric infusion systems. The set requires less nursing time and ensures safety for the patient.

A. H. Robins announces a new form of REGLAN® (Metoclopramide Hydrochloride). A formulation of the drug in the form of a sugar-free syrup is in addition to Reglan tablets already on the market. Both forms are indicated for stimulation of motility of the upper gastrointestinal tract without stimulating secretions.

The Dosimeter Corporation sells Astecair Air Purifiers, which are recommended for labs with undesirable odors. The new Air Purifiers have filtering media specifically made to remove formaldehyde, xylene and other solvents. Any of six filtration media may be installed to match each problem. Absorbers are available for hydrogen sulphide, formic acid, fecal and urinary odors, and other animal or human odors. Other filters are for use in patient rooms to remove wound odors and odors due to incontinence. The Purifiers recirculate the air and obviate venting to the outside with loss of heat during the heating season.

RU-TUSS® II
sustained release capsules

Before prescribing, see complete prescribing information. The following is a brief summary.
DESCRIPTION: Each sustained release capsule contains 12 mg of Chlorpheniramine Maleate, USP and 75 mg of Phenylpropanolamine Hydrochloride, USP in a base to provide prolonged activity.
INDICATIONS: For the treatment of the symptoms of seasonal and perennial allergic rhinitis and vasomotor rhinitis, including nasal obstruction (congestion).
CONTRAINDICATIONS: Hypersensitivity to any of the components, concurrent MAO inhibitor therapy, severe hypertension, bronchial asthma, coronary artery disease, stenosing peptic ulcer, pyloroduodenal or bladder neck obstruction. Do not use in children under 12 years.
Do not use this drug in patients with narrow-angle glaucoma, obstructive or paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrage, severe ulcerative colitis, toxic megacolon complicating ulcerative colitis, myasthenia gravis. Do not use in nursing mothers.
Use in treating lower respiratory tract symptoms, including asthma, is contraindicated.
WARNINGS: Caution patients about activities requiring alertness (e.g., operating vehicles or machinery). Antihistamines are more likely to cause dizziness, sedation, and hypotension in elderly patients. Patients should also be warned about the possible additive effects of alcohol and other CNS depressants.
Usage in pregnancy: Safe use in pregnancy has not been established. Use only when the potential benefits have been weighed against the possible hazards to the mother and child. Note that an inhibitory effect on lactation may occur.
PRECAUTIONS: Use with caution in patients with a history of bronchial asthma, increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension, hiatal hernia with reflux esophagitis, intestinal atony of the elderly or debilitated intestinal obstruction, myasthenia gravis, renal function impairment, and ulcerative colitis (severe).
Drug Interactions: MAO inhibitors, Alcohol or CNS depressants, especially anesthetics, barbiturates, and narcotics.
ADVERSE REACTIONS: Prolongs the response to nervous stimulation, potentiates the response to norepinephrine, and inhibits the response to tyramine.
Slight to moderate drowsiness occurs relatively infrequently with Chlorpheniramine Maleate. Other possible side effects common in antihistamines in general include perspiration, chills, dryness of mouth, nose and throat.
Cardiovascular System: Hypotension, headache, palpitations, tachycardia, extrasystoles.
Hematologic System: Hemolytic anemia, thrombocytopenia, agranulocytosis.
Nervous System: Sedation, dizziness, disturbed coordination, fatigue, confusion, restlessness, excitation, nervousness, tremor, irritability, insomnia, euphoria, paresthesias, blurred vision, diplopia, vertigo, tinnitus, acute labyrinthitis histeria, neuritis, convulsions.
Gastrointestinal System: Epigastric distress, anorexia, nausea, vomiting, diarrhea, constipation.
Genitourinary System: Urinary frequency, difficult urination, urinary retention, early menses.
Respiratory System: Thickening of bronchial secretions, tightness of chest and wheezing, nasal stuffiness.
DOSAGE AND ADMINISTRATION: Dosage should be individualized according to the needs and response of the patient. Adults: one capsule every 8 to 12 hours not to exceed 3 capsules daily. Not for use in children under 12 years of age.
OVERDOSAGE: Treatment of the signs and symptoms of overdosage is symptomatic and supportive. In the event of overdosage, emergency treatment should be started immediately.
Treatment: The patient should be induced to vomit, even if emesis has occured spontaneously. Vomiting by the administration of ipecac syrup is a preferred method. However, vomiting should not be induced in patients with impaired consciousness. Stimulants (analeptic agents) should not be used. Vasopressors may be used to treat hypotension. Short-acting barbiturates, diazepam or paraldehyde may be administered to control seizures. Hyperpyrexia, especially in children, may require treatment with tepid water sponge baths or a hypothermic blanket. Apnea is treated with ventilatory support.
HOW SUPPLIED: Green and clear capsules with green and white beads. Bottles of 100 tablets. NDC 0524-0031-01
Store at controlled room temperature 15-30°C (59°-86°F.).
CAUTION: Federal law prohibits dispensing without prescription.

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FUTURE FILE

Workers' Compensation

"Medical Determinations in Workers' Compensation" is the subject of a conference Oct. 24 and 25 at the Ambassador West Hotel, Chicago. The American Society of Law & Medicine and the Illinois Institute for Continuing Legal Education are the sponsors.

Compensable heart disease, workplace-related pulmonary diseases, low back injuries and chronic pain will be discussed. The fees are $200 for a member of a cooperating sponsor and $225 for a non-member.

To register, send name, address and phone number to Conference Registrar, American Society of Law & Medicine, 765 Commonwealth Ave., Boston 02215—(617) 262-4990.

Management Seminars

Resort Seminars is offering a series of medical and professional business management seminars to be held in Keystone, Vail, and Snowmass Village, Colorado throughout the winter season, 1983-84.

Seminar content encompasses a comprehensive and up-to-date overview of current business elements. It is directed to ultimately improve the professional's effectiveness in everyday operations and to increase productivity and profitability. Sixteen seminars will be conducted weekly beginning in December and continuing into mid-April. Fourteen CME Category 1 credits are offered. The seminars are designed to conform with the time demands of the other activities in the area.

Write or phone Resort Seminars, P.O. Box 5212, Snowmass Village, Colo. 81615—(303) 923-5850.

Emergency Medicine

The 1984 annual meeting of the University Association for Emergency Medicine will be held at the Hyatt Regency in Louisville May 23 to 26. Abstracts for scientific articles to be presented at the meeting will be accepted until Feb. 15. Mail five copies to UA/EM, 900 West Ottawa, Lansing, Mich. 48915.

Indiana ACP Meeting

The American College of Physicians, Indiana Chapter, will conduct its regional CME meeting Oct. 28 and 29 at the Holiday Inn-North, Indianapolis. Nonmembers may attend—the registration fee is $10.

For details or a copy of the program write to Walter J. Daly, M.D., Emerson Hall, Room 317, 545 Barnhill Drive, Indianapolis 46223.

Indianapolis CME Courses

Methodist Hospital, Indianapolis, announces the following CME courses:

Oct. 7-8: Neurological Critical Care—for neurologists, neurosurgeons and nurses.

Nov. 2: To Clot or Not to Clot—a consideration of anti-coagulation for family practitioners and internists.

Nov. 2: Office Gynecologic Urology—at the Sheraton Meridian Hotel, Indianapolis, for Ob/Gyn physicians of Indiana, Ohio, Illinois and Kentucky.

Nov. 4-7: Advanced Trauma Life Support—for surgeons, emergency practitioners and family practitioners.

Nov. 11: Diabetes Update 1983—for internists, family practitioners and nurses.

Nov. 30: Rationing of Health Care: Is It Ethical?—co-sponsored by St. Vincent Health Care Center; Holiday Inn North, Indianapolis; for physicians and nurses.

Heart Diseases

"Diagnosis and Management of Myocardial Infarction" will be the title of the 3rd Annual Heart Diseases Conference at the University of Wisconsin. It meets at the Clinical Science Center in Madison Dec. 9 and 10. AMA Category 1 credit and AAFP credit.

The correspondent is Sarah Z. Aslakson, 465B WARF Bldg., 610 Walnut St., Madison, Wisc. 53705—(608) 263-2856.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Leadership Workshop

A one-day Leadership Workshop for Foreign Medical Graduates will meet in Dearborn, Mich., Nov. 13, at the Hyatt Regency Hotel during the final day of the American Medical Women's Association's national meeting. The workshop is part of a project to develop creative leaders among a broad spectrum of FMGs. Enrollment is limited and early registration is encouraged.

Write or phone Sue Earley, AMWA PRRC, 2302 E. Speedway, #206A, Tucson, Ariz. 85719—(602) 795-2677.

Health Care Conference

"Corporate Health Care Cost Containment" will be the subject of a conference Nov. 8-10 at the Sheraton Hotel, Atlanta, Ga. *Business Week* and McGraw-Hill's Washington Health Letters are the sponsors. This will be the fourth such conference.

For details, write to *Business Week* Executive Programs, 1221 Avenue of the Americas, Suite 4049, New York, N.Y. 10020, or call Maria McCabe at (212) 997-4853.

Cancer Therapy

The American Cancer Society National Conference on Advances in Cancer Therapy will be held in New York City, Dec. 8-10. The program is eligible for 16.5 AMA Category 1 credit hours and for 15 AAFP prescribed hours.

Contact Nicholas G. Bottiglieri, M.D., American Cancer Society, 777 Third Ave., New York, N.Y. 10017.

EMS Control Seminar

"Medical Control and Accountability in Emergency Medical Services" is the topic of a two-day seminar Nov. 4 and 5 at the Marriott Hotel in downtown Chicago. It is jointly sponsored by the AMA and the American Hospital Association. The conference will address the critical essentials of quality control and accountability in an EMS system.

Correspondent is Health Care Resources, AMA, 535 N. Dearborn, Chicago 60610—(312) 751-6433.

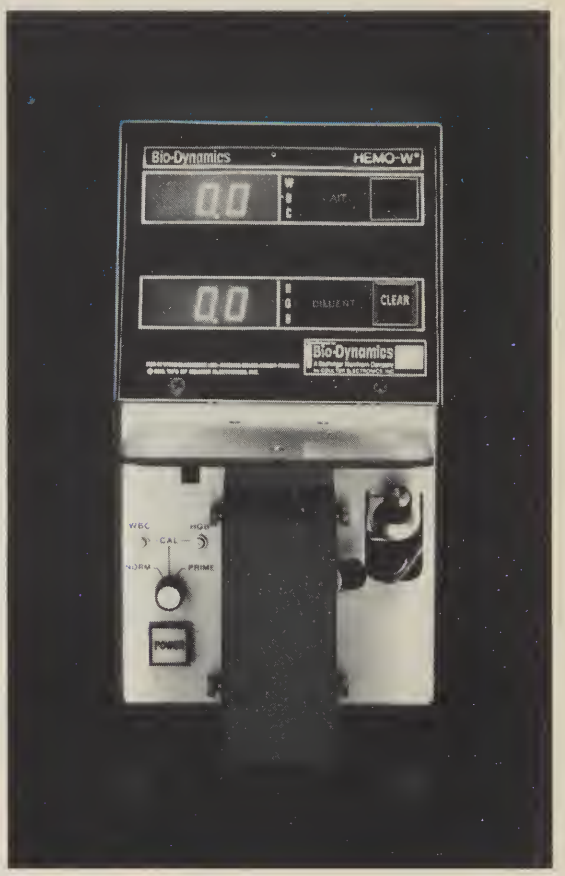
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J-9043-4 July

In vitro studies demonstrate

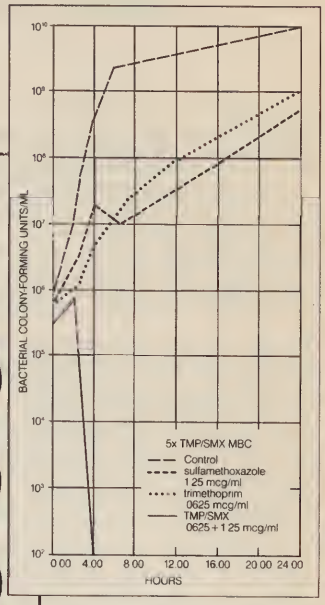
Bactericidal activity with minimal resistance

Percent of isolates of common uropathogens sensitive to BACTRIM and to other antimicrobials

	Escherichia coli	*Klebsiella pneumoniae*	*Proteus mirabilis*	*Proteus vulgaris*	*Proteus sp.*	*Enterobacter sp.*	*Enterobacter aerogenes*	*Enterobacter cloacae*
BACTRIM	**96%** 328,598	**89%** 63,551	**93%** 62,691	**84%** 4174	**91%** 4381	**88%** 1736	**96%** 7326	**92%** 11,856
ampicillin	72% 345,209	5% 65,466	85% 67,338	16% 4381	70% 4402	10% 1775	9% 7759	11% 12,091
cephalexin†	81% 343,339	85% 67,031	92% 67,027	16% 4398	80% 4365	22% 1834	13% 7571	12% 11,846
nitrofur-antoin	97% 307,785	65% 61,162	7% 59,775	13% 3848	14% 3059	67% 1707	60% 7109	67% 10,830

†Analogous to cephalothin, the primary antibiotic disc used in testing.
Source: The Bacteriologic Report, BAC-DATA Medical Information Systems, Inc., Winter Series, 1981-82.
Numbers under percentages refer to the projected number of isolates tested.

RAPID *IN VITRO* DESTRUCTION OF *E. COLI**



Kill curve kinetics of Bactrim and its individual components against *E. coli in vitro.*[1]

The bactericidal action of Bactrim has been demonstrated *in vitro* on laboratory strains of *E. coli*[1,2] and on clinical isolates of *E. coli, Klebsiella-Enterobacter, Proteus mirabilis* and *Morganella morganii*[3]—the most common causative organisms of urinary tract infections.[4] More than 100 published studies attest to the efficacy of Bactrim in recurrent urinary tract infections due to these organisms.[5] In comparative studies with other antimicrobials, Bactrim has consistently demonstrated unsurpassed efficacy during therapy.[6-11]

Resistance to Bactrim develops more slowly than to either of its components alone *in vitro.** Among urinary tract isolates, resistance has rarely emerged in susceptible strains.[5,12] Bactrim is contraindicated in pregnancy at term, during lactation, in infants less than two months old and in documented megaloblastic anemia due to folate deficiency.

Initial episodes of uncomplicated urinary infections should be treated with a single-agent antimicrobial.

Bactrim™ DS

(trimethoprim and sulfamethoxazole/Roche)

b.i.d. *for recurrent urinary tract infections*

**In vitro* data do not necessarily predict clinical results.

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See next page for references and a summary of product information.

References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Kramer MJ, Mauriz YR, Robertson TL, Timmes MD: Morphological studies on the effect of subinhibitory and inhibitory doses of sulfamethoxazole-trimethoprim combination on *Escherichia coli*. Presented at the 12th International Congress of Chemotherapy, Florence, Italy, Jul 19-24, 1981. **3.** Spicehandler J *et al: Rev Infect Dis* 4:562-565, Mar-Apr 1982. **4.** Stamey TA: *Pathogenesis and Treatment of Urinary Tract Infections*. Baltimore, Williams & Wilkins, 1980, p. 13. **5.** Ronald AR: *Clin Ther* 3:176-189, Mar 1980. **6.** Cooper J, Brumfitt W, Hamilton-Miller JMT: *J Antimicrob Chemother* 6:231-239, 1980. **7.** Gower PE, Tasker PRW: *Br Med J* 1:684-686, Mar 20, 1976. **8.** Cosgrove MD, Morrow JW: *J Urol* 111:670-672, May 1974. **9.** Iravani A *et al: Antimicrob Agents Chemother* 19:598-604, Apr 1981. **10.** Schaeffer AJ, Flynn S, Jones J: *J Urol* 125:825-827, Jun 1981. **11.** Rous SN: *J Urol* 125:228-229, Feb 1981. **12.** BAC-DATA Medical Information Systems, Inc., Bacteriologic Reports, Winter Series, 1976-82.

Bactrim™ DS

(trimethoprim and sulfamethoxazole/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, hepatocellular necrosis, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients. *Pregnancy:* Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, hepatocellular necrosis, diarrhea, pseudomembranous colitis and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: *Not recommended for infants less than two months of age.*

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

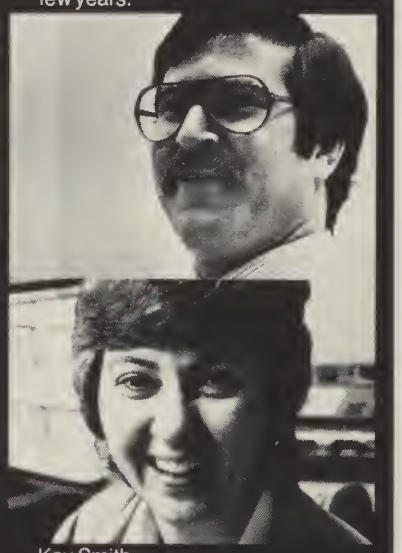
Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 20. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per tea spoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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New information from
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**EVERY PHYSICIAN'S OFFICE—
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CANCER CORNER

Mammography Guidelines 1983: Background Statement and Update of Cancer-Related Checkup Guidelines for Breast Cancer Detection in Asymptomatic Women Ages 40-49:
The following statement was approved by the Board of Directors, American Cancer Society, June 4, 1983:

Mammography has made significant contributions to the diagnosis of breast disease in *symptomatic* women and in the detection of breast cancer in asymptomatic women age 50 years and older. However, in younger asymptomatic women, the role of mammography is less clearly established by controlled randomized trials and the hypothetical projection of risk from radiation.

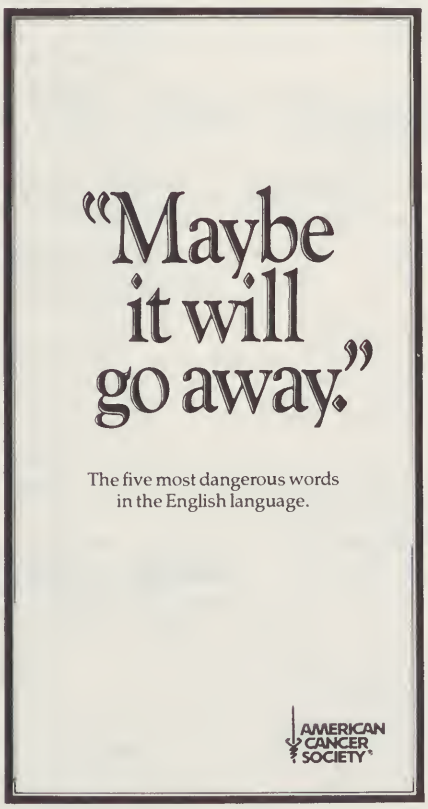
However, recently reported results from the American Cancer Society-National Cancer Institute Breast Cancer Detection Demonstration Projects indicate that one-third of the breast cancers occurred in women between the ages of 35 and 49 years, and most of these lesions were either *in situ* or did not involve the regional lymph nodes. Most of the cancers were detected by mammography alone rather than by physical examination alone.

There has been remarkable improvement in the quality and diagnostic accuracy of mammography in recent years, concomitant with a marked reduction in the radiation dose—one rad or lower at the mid-breast, using a two-view examination. Available information suggests that the risk of inducing breast cancer by the low doses now possible with modern mammography—if it exists at all—is minimal.

Because of the detection of some palpable and small breast cancers and because of the reduced radiation exposures now possible with optimum mammographic technique and carefully monitored equipment, a favorable benefit/risk ratio can be expected in women beginning at age 40 and older.

To provide guidance to physicians and women, the Society recommends a modification of its current guidelines for asymptomatic women ages 40-49. This guidance, based on careful examination of available data, may be modified when and if new information surfaces.

The American Cancer Society is now recommending the following: *That the Cancer-Related Checkup Guidelines for breast cancer detection be modified for asymptomatic women ages 40-49 years. Women in this age group should have a physical examination of the breast annually, and mammography should be performed at intervals of one to two years.*



Prophylactic Mastectomy: On June 4, 1983, the Board of Directors of the American Cancer Society approved the following statement on Prophylactic Mastectomy:

When breast cancer is diagnosed early, treated promptly and adequately, the cure rate is very high. The American Cancer Society approves the concept of reconstruction, when appropriate, for women who have had a mastectomy. However, the Society has great concern about prophylactic mastectomies. Only very clinical and/or pathological indications warrant doing this type of "preventive" operation.

Prophylactic mastectomy is the surgical removal of a breast in the absence of known breast cancer, but in anticipation of occurrence of cancer in that breast. To lessen the risk of developing breast cancer, prophylactic mastectomy is sometimes advised for women at very high risk. Such high risk exists in women who have had cancer of one breast, a strong family history of breast cancer occurring in maternal relatives before the menopause, biopsies of the breast showing microscopic cellular changes accepted as precursors of breast cancer and, infrequently, other factors of varying importance.

Physicians' opinions may vary regarding the indications or benefits of prophylactic mastectomy for women at high risk. Some physicians prefer frequent physical evaluations and periodic mammograms because they do not consider the actual risk of developing breast cancer sufficiently high to justify removal of the breast.

Total mastectomy is an operation which removes all breast tissue. Subcutaneous mastectomy is an operation which removes most of the breast tissue and leaves the skin of the breast and the nipple as well. It should be noted that the skin and the nipple may no longer have sensation after surgery. Since a subcutaneous mastectomy leaves varying amounts of breast tissue behind, some physicians believe that the risk of developing breast cancer in that tissue still exists.

A woman who is a potential candidate for prophylactic mastectomy should carefully review all details with the physician(s) she chooses as her advisor(s). The discussion should include the justification for the mastectomy in relation to risk, possible complications and the potential for reconstruction.

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To obtain Category 1 credit for this month's article, complete the quiz on page 715.



Amniocentesis in the Prenatal Diagnosis of Genetic Disorders and Congenital Defects

LILLIE MAE PADILLA, M.D.
Indianapolis

PRENATAL DIAGNOSIS of genetic disorders and congenital defects represents one of the most exciting advances in medicine. Twenty-five years ago, genetic counseling consisted of reviewing family pedigrees and merely providing prospective parents with risk figures for future offspring. Development and improvement in tissue culture techniques, chromosome staining techniques, enzyme assays and the procedure of amniocentesis have revolutionized our approach.

Today, prenatal diagnosis allows detection of a multitude of fetal abnormalities early in the pregnancy. With the information provided by prenatal diagnosis, parents can decide whether or not they wish to continue the pregnancy. Many couples previously unwilling to have offspring because of serious genetic risks can now have children without fearing the birth of a child with a specific genetic disorder.

At present, three major diagnostic tools are available for prenatal diagnosis: amniocentesis; ultrasound; and fetoscopy and placental aspiration. Using these techniques, virtually all chromosomal abnormalities, 90% of neural tube defects, about 200 genetic metabolic disorders, and a number of hemoglobinopathies and genodermatoses can now be diagnosed prenatally. The purpose of this article is to review the current status of amniocentesis in prenatal diagnosis. Ultrasound, fetoscopy and placental aspiration will need to be discussed on another occasion.

A General Overview

The decision to do an amniocentesis implies an awareness of the scope of prenatal diagnosis and the indications for the procedure. Amniotic fluid is obtained transabdominally under aseptic condi-

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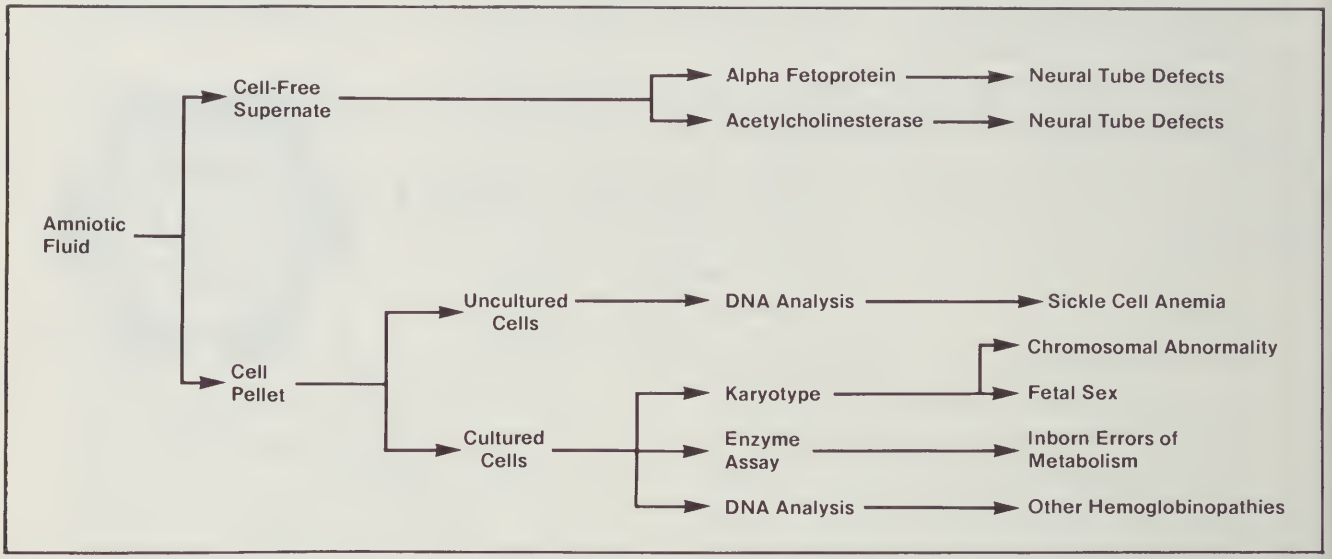


FIG. 1: Analysis of Amniotic Fluid for Genetic Disorders

tions and is centrifuged, producing a cell-free supernate and the cellular pellet. *Figure 1* outlines the procedures for analysis of the amniotic fluid.

The cell-free amniotic fluid is used for biochemical assays. Among the components of amniotic fluid utilized in prenatal diagnosis are enzymes, amino acids, hormones and abnormal metabolic by-products. The measurement of alpha-fetoprotein (AFP) in the supernate is the main test used to diagnose neural tube defects (NTD).[1] More recently, however, because of the 10% false-positive rate associated with the test, an additional test, acetylcholinesterase electrophoresis (AChE) of the amniotic fluid, has been used to increase the accuracy of the diagnosis of NTD.[2]

Amniotic fluid cells are derived primarily from the amnion, desquamated fetal skin, buccal mucosa, vaginal epithelium, umbilical cord, and fetal urinary tract. The only abnormality diagnosable by evaluation of uncultured amniotic fluid cells is sickle cell anemia. Fibroblast DNA obtained from amniotic fluid cells is analyzed using a restriction endonuclease method.[3,4] Restriction endonucleases are enzymes that cleave DNA at specific nucleotide sequences. The resulting pieces of DNA can be separated and then allowed to interact with DNA probes, which detect the differences between the DNA precursors for normal and sickled hemoglobin.

Cultivated amniotic fluid cells provide the most reliable information for the prenatal diagnosis of chromosomal abnormalities, inborn errors of metabolism, and other hemoglobinopathies. Cultivation of cells is a slow process. An initial 20-40 cc. of amniotic fluid is needed at the time of amniocentesis. A large number of actively dividing cells are necessary to perform the various analyses, and only when an optimal growth of the culture is obtained can they be harvested and analyzed. The time requirement from amniocentesis to completion of a karyotype for chromosomal analysis is usually three - five weeks and for in-born errors of metabolism approximately four - six weeks.

TABLE 1
Indications for Genetic Amniocentesis

1) Cytogenetic
   a. Advanced maternal age (plus or minus 35 years)
   b. Previous trisomic child
   c. Translocation carriers
   d. Miscellaneous
2) X-linked recessive disorders
3) Metabolic disorders
4) Neural tube defects
5) Hemoglobinopathies

Karyotyping of cultured fetal cells employs staining of the chromosomes with fluorochrome or giemsa while the cells are in the metaphase of mitotic division. These stains enhance the banding patterns unique to each chromosome pair. The chromosomes are photographed, the 23 pairs matched, and all the chromosomes are examined in detail. Karyotyping establishes fetal sex (XX, female or XY, male), the diagnosis of Down syndrome (Trisomy 21, the presence of an extra chromosome, number 21), and virtually all other chromosomal numerical and structural abnormalities.

Biochemical studies of the cultured cells establish the diagnosis of inborn errors of metabolism in the fetus. Inborn errors of metabolism are generally caused by a defect in only a single gene, and present-day technology is still unable to directly detect a single abnormal gene in a given chromosome. Thus, the diagnosis of these defects is not dependent on karyotyping, but rather on the quantitative or qualitative analysis of enzymes or metabolites in cultivated cells that are known to be affected when the gene ab-

normality is expressed. The vast majority of the inborn errors of metabolism are autosomal recessive in nature. Thus, for an individual to be affected, a double dose of the gene (homozygote) is required, each gene inherited from each parent carrier. Individuals who carry only one dose of the gene are heterozygous (carriers for the gene) and generally are unaffected, but can transmit the abnormal gene to their offspring.

The rapidly increasing numbers of qualitative and quantitative enzyme assays in cultivated cells allow more biochemical abnormalities to be diagnosable prenatally. Although there are approximately 200 such disorders that have been or are potentially diagnosable prenatally, a single screening test has not been developed to evaluate all such disorders. Hence, usually only one, or a few at the most, can be evaluated from any given fetal cell culture sample.

Indications for Amniocentesis

On the basis of the above mentioned diagnostic capabilities, the indications for prenatal diagnosis are summarized in *Table 1*. For a detailed list of disorders currently diagnosable by amniocentesis, please refer to *Table 2*.

1. Cytogenetic Studies

a. Maternal Age

By far the most common indication for prenatal diagnosis is advanced maternal age. Advancing maternal age is associated with an increasing risk of having a child with Down syndrome (Trisomy 21). This syndrome is due to the presence of an extra chromosome, number 21, and affected individuals have 47 chromosomes rather than the normal 46. The overall incidence of Trisomy 21 is 1/800 live births. By contrast, a mother who will be 35 years of age at the time of birth of her child has a 1/365 risk of having a Down syndrome child; at age 40 years, the risk is 1/109; at 45 years 1/32, and at 49 years 1/12.[5]

The observed incidence of Trisomy 21 detected by genetic amniocentesis in pregnancies monitored for maternal age is actually one and a half to two times greater than that reported for live births.[6] This discrepancy may be due to late fetal loss, a higher frequency of perinatal death among chromosomally abnormal infants, or selection of the antenatal study population.

Although Trisomy 21 is the most common chromosomal abnormality associated with advancing maternal age, other autosomal trisomies and sex chromosome abnormalities are also associated with increasing maternal age.

TABLE 2
Disorders That Can Be Diagnosed by Amniocentesis

I. Chromosomal Abnormalities
II. Congenital Malformations
- A. CNS abnormalities: anencephaly; craniorachischisis; encephalocele; hydrocephaly; iniencephaly; Meckel-Gruber syndrome; Pituitary agenesis; Spina bifida cystica (includes meningocele myelocele, and meningomyelocele)
- B. Gastrointestinal Tract: duodenal atresia; esophageal atresia; extrophy of cloaca; gastroschisis; imperforate anus; multiple intestinal atresia - autosomal recessive type
- C. Skeletal System: osteogenesis imperfecta; Roberts syndrome
- D. Urogenital System: Congenital nephrosis - Finnish type (congenital nephrotic syndrome); Polycystic kidney disease - autosomal dominant-adult type; Prune belly syndrome (Eagle-Barrett syndrome, Triad syndrome, uretheral obstruction malformation sequence)
- E. Other Malfunctions: Arcardia (acephalus; chorioangio-pagus parasiticus, holocardium amorphous twin); Amniotic band disruption complex (amniotic adhesion malformation complex; amniotic band syndrome; Streeter bands); Body wall defects with limb anomalies, pilonidal sinus

III. Dermatologic Disorders: Epidermolysis bullosa simplex
IV. Fetal infections: Rubella
V. Hematologic Disorders: Fanconi anemia (Fanconi pancytopenia); glucose phosphate isomerase deficiency; Methemoglobinemia, Type II
VI. Hemoglobinopathies: Hemoglobin H Disease; Sickle Cell Anemia; Alpha thalassemia (hydrops fetalis); B thalassemia, homozygous (thalassemia major)
VII. Inborn Errors of Metabolism
- A. Amino Acid metabolism: Argininosuccinic aciduria; Citrullinemia; Cystinosis (nephropathic cystinosis); Cystinuria; Glutaric acidemia; Homocystinuria; Maple syrup urine disease; Methylmalonic Aciduria - 5'Deoxyadenosylcobalamine deficiency & Methylmalonyl CoA mutase deficiency; Nonketotic hyperglycinemia; Propionic acidemia (Ketotic hyperglycinemia)
- B. Carbohydrate metabolism: Galactosemia classic form (Galactose -1- phosphate uridyl transferase deficiency); Pompe disease (glycogenosis type II); Pyruvate carboxylase deficiency;
- C. Lipid Metabolism: Adrenoleukodystrophy; Fabry disease (diffuse angiokeratoma), Farber disease (lipogranulomatosis, familial); Gangliosidosis, Gm1 -type 1 (infantile); Gangliosidosis, Gm1 -type 2 (juvenile); Gaucher disease, infant juvenile; Krabbe disease (globoid cell leukodystrophy); Metachromatic leukodystrophy; Mucolipidosis, Type IV (Bermann disease); Niemann-Pick disease, Type A. Niemann-Pick disease, Type B;e); Niemann-Sandhoff disease (Gangliosidosis GM2 -type 2; Tay-Sach's disease (Gangliosidosis, Bm2 -type I); Wolman disease
- D. Mucopolysaccharide Metabolism: Hunter syndrome (Mucopolysaccharidosis type II); Hurler syndrome (Mucopolysaccharidosis type H-I); Maroteaux-Lamy syndrome (Mucopolysaccharidosis type IIIA)
- E. Other Metabolic Disorders: Acute intermittent porphyria, Adenosine deaminase deficiency (combined immunodeficiency disease), Congenital adrenal hyperplasia (21-hydroxylase deficiency; adrenogenital syndrome), Congenital erythropoietic prophyria (uroporphyrin III cosynthetase deficiency); Congenital sialidosis, Hypercholesterolemia, familial homozygous form, Hypophosphatasia, congenital lethal form; Lesh-Nyhan syndrome (Hypoxanthine - guanine phosphoribosyl transferase deficiency); Lysosomal acid phosphatase deficiency; Mannosidosis; Menke disease; Placental steroid sulfatase deficiency; Xeroderma pigmentosum

VIII. Other Prenatal Conditions: Cystic fibrosis (mucoviscidosis); Duchenne muscular dystrophy; Martin-Bell syndrome, Macrotestis; X-linked mental retardation syndrome (Fragile X-chromosome syndrome)
IX. Tumors & Cysts: Cystic lymphangioma (Cystic hygroma, lymphangiectasia); Hemangioma placenta; Hemangioma - umbilical cord; Nuchal bleb; Teratoma - sacrococcygeal

These include Trisomies 13, 14, 15, and 18, and 47 XXY, XXX, XYY.[7]

b. Previous Trisomic Child

The second indication for cytogenetic studies is a history of having had a previous child with Trisomy 21. The data suggest that mothers who had their first affected child at the age of 29 years or less have a recurrence risk of 1-2%. Above this age, the recurrence risk does not differ significantly from that of maternal age alone.[8]

Data regarding recurrence risks for prior trisomies other than Trisomy 21 is limited. A recurrence risk of 1.7% has been estimated for either the same or for a different chromosomal abnormality.[9]

c. Chromosomal Abnormalities in the Parents

Any parent may unknowingly be a translocation carrier for a number of different chromosomal disorders. Translocation carriers are individuals who have a structural rearrangement in their chromosomes (mutual exchange of chromosome segments between two chromosomes). When all chromosome segments are present, but only rearranged, the individuals are considered to have "balanced" translocations and are generally normal. However, such individuals have an increased risk of having offspring with unbalanced chromosomes, where chromosome segments are missing or extra. The presence of unbalanced chromosomes generally results in abnormal individuals. The risk of having a child with an unbalanced translocation depends on the chromosomes involved, as well as which parent is the carrier of the abnormality. The most common example of translocation is familial Down syndrome, accounting for approximately 4% of all Down syndrome. An individual carrying a translocation between his or her two number 21 chromosomes has a 100% risk of having an affected child. In contrast, a mother carrying a translocation between chromosomes number 15 and 21 has a 9% risk of having an affected child, whereas this would be 4% or less for a father carrying the same abnormality.[10]

d. Miscellaneous

A number of couples seek amniocentesis and fetal karyotyping for indications such as maternal anxiety, unexplained congenital malformations, radiation exposure, cancer chemotherapy, and environmental exposure to mutagens. Each case must be considered individually; it is of primary importance that they clearly understand the limitations and risks of the procedure.

2. X-Linked Disorders

A family history of an X-linked recessive abnormality (e.g., Duchenne muscular dystrophy) constitutes the second category for indications of amniocentesis. The gene responsible for the X-linked recessive disorders is carried by one of the X chromosomes of the female. Her daughters receiving the X chromosome containing the abnormal gene become carriers of the gene, similar to their mother's. Female carriers are generally normal because they have another normal X chromosome to offset the abnormal X chromosome. Sons receiving the same X chromosome bearing the abnormal gene are affected, and daughters or sons receiving the normal maternal X chromosome are all normal.

X-linked recessive disorders are therefore transmitted from female carrier to affected males, and the risk of having an affected child would be 1/4 for all offspring or 1/2 for male children. X-linked dominant disorders (e.g., vitamin D resistant rickets) are quite rare and are transmitted directly from an affected father to all of his daughters. Of the many sex-linked diseases known, only about 30 are serious enough to justify amniocentesis.[11] At present there are only three X-linked disorders in which an affected male fetus can be distinguished with certainty from an unaffected male fetus: Fabry's disease, Lesch-Nyhan syndrome, and Hunter's syndrome.[10,12] With the aid of fetoscopy and fetal blood sampling, however, three other X-linked disorders can be diagnosed once a male fetus is identified by cytogenetic studies: hemophilia A, hemophilia B, and X-linked agammaglobulinemia. In all other X-linked disorders, only prenatal sex can be established but the presence or absence of the disorder in the fetus cannot be verified. If, based on the diagnosis of a male fetus, a decision to interrupt the pregnancy is made, parents have to understand that there is a 50% chance that the fetus is normal.

3. Hereditary Metabolic Disorders

Inherited biochemical disorders of metabolism (e.g., Tay-Sachs Disease) occur with an estimated frequency of as high as 1/100 live births. Some of these biochemical disorders may be benign and not appropriate for prenatal diagnostic studies. Many, however, are associated with profound mental defect and/or a fatal outcome, and therefore are entirely appropriate for prenatal study. Unfortunately, a tragic index case often provides the first indication of hereditary problems. The majority of patients undergoing amniocentesis for the diagnosis of an inborn error of metabolism come because they have had a previously affected child.

The essential approach to the prenatal diagnosis of the inborn errors of metabolism has depended upon the demonstration of complete or partial enzyme deficiencies or accumulation of storage substances. The mode of inheritance is autosomal recessive for the vast majority of the inborn errors of metabolism. Thus, the risk of having another affected child remains at 25% (1/4) in any subsequent pregnancy. Fifty per cent of offspring (1/2) would be carriers of the mutant gene, and the remaining 25% would be normal. There is a steady increase in the number of biochemical disorders that have been diagnosed as well as disorders that are potentially diagnosable *in utero*. Hereditary metabolic disorders are classified into five categories: lipidoses, mucopolysaccharidoses, amino acid and related disorders, disorders of carbohydrate metabolism, and miscellaneous hereditary disorders.

To date there are approximately 200 inborn errors of metabolism that have been prenatally diagnosed, or that are potentially diagnosable *in utero*. At pre-

sent, Tay-Sach's disease, Pompe's disease, and the mucopolysaccharidoses (Hurler's and Hunter's syndromes) are the most common indications for prenatal diagnosis of inborn errors of metabolism. The problems with heterogeniety, the presence of different isoenzymes, and the effects of different culture conditions make it necessary more than ever to be certain of the exact nature of the disorder being sought. A disorder may have different forms which may be due to a different enzyme deficiency. The limited number of cells that usually can be grown from an amniotic fluid sample place severe constraints on the number of different enzymatic assays that can routinely be provided from any single culture sample.

Although it has been stated that the majority of investigations for inborn errors of metabolism arise from the fact that a couple has had a previously affected child, in rare circumstances the monitoring of a first pregnancy to prevent an inborn error of metabolism can be done. Tay-Sach's disease represents this example, since it is known to be prevalent in certain groups of people. In Ashkenazi Jews, heterozygotes for Tay-Sach's disease are found in approximately 1/40. In the non-Jewish population, the prevalence of heterozygotes is approximately 1/380.[10] Couples belonging to a group with a high prevalence rate may elect to have themselves tested for the heterozygous state of the disorder. Should both partners be found to be carriers of this particular gene, they would have a 25% risk of having an affected child and may therefore elect to undergo prenatal genetic studies during the first pregnancy, prior to ever having had a previously affected child. Heterozygote (trait carrier) detection is the first step in prenatal diagnosis in this situation. However, attempts at detection of the trait carrier should be initiated *before* pregnancy since enzyme assays done on the pregnant female may lead to unreliable results. Such is the case in the determination of heterozygotes for Tay Sach's disease by quantitation of serum Hexosaminidase A levels.[13]

4. Neural Tube Defects

Failure of the proper closure of the neural groove to form an intact neural tube, which normally is completed by 28 days, results in a neural tube defect (NTD). When the defect is anterior this results in anencephaly, and when the defect is in the mid and caudal portions of the groove, spina bifida results. For parents who have had one affected offspring the risk of recurrence for similar defects is estimated to be about 3-5%.[14-17] This risk increases to 10-12% after the birth of a second affected child.[15-17] The etiology of these abnormalities seems to be both genetic and environmental. Genetic factors seem important because of the familial incidence, whereas geographic or ethnic affiliation suggest an environmental cause. Individuals at risk for having a child with NTD include: adult survivors with spina bifida cystica (32),[18] parents of children with hydrocephaly (1.6%),[19] second degree relatives of an affected individual (0.6%),[20] sibs of the parents of an affected individual,[21] and insulin dependent pregnant diabetic women (1.95%).

The diagnosis of NTD *in utero* is based on the elevation of amniotic fluid alpha fetoprotein (AFP) above normal for a given gestational age. Amniotic fluid AFP measurement enjoys an accuracy of almost 90% in mothers at high risk for neural tube defects. The inaccuracies consist of approximately 10% false-negatives and 0.15% false-positives.[1]

More recently, acetylcholinesterase (AChE) gel electrophoresis has been advocated in addition to AFP for the diagnosis of NTD. Quantitative[23,24] and qualitative assays[25,26] have been used to distinguish the true-positive from the false-positive AFP test results. Gestational age appears to have no effect on AChE between 16-24 weeks, whereas AFP levels decrease by about 10% per week, so that accuracy of dates is essential for the interpretation of AFP. Reports also suggest that AChE is probably more disease-specific than AFP, although false-positive results also have been reported.

The results of a collaborative AChE study was reported in 1981.[27] Fifteen centers contributed amniotic fluid from 1,099 pregnancies with positive AFP results. 99.6% (476/478) of cases with anencephaly and 99.4% (333/335) of cases with open spina bifida were correctly identified. There was a 6.4% (8/125) false-positive rate; all but one of these samples were blood stained. The authors concluded that the gel AChE test was very effective when applied to amniotic fluid samples with positive results, substantially reducing the number of false-positives with only a very minimal loss in the detection of open NTD.

5. Hemoglobinopathies

The most recent indication for genetic amniocentesis is for couples at risk for having children with sickle cell disease, and certain alpha and beta thalassemias. Sickle cell disease is an autosomal recessive disorder, and heterozygotes can be easily identified.

Of the many forms of thalassemias, only B° thalassemia (thalassemia major or Cooley's anemia), the lethal form of alpha thalassemia (fetal hydrops), and Hemoglobin H disease are serious enough to warrant prenatal diagnosis.

Risks of Amniocentesis

The risks of transabdominal amniocentesis performed in the midtrimester can be divided into two categories: risks to the mother and risks to the fetus. For the mother, serious risks are extremely rare, but may include bleeding, infection, injury to other intra-abdominal viscera, and blood group iso-immunization. Potential fetal risks are likewise small, but may include needle injury, abortion, infection, and possible injury from withdrawal of amniotic fluid or defects in the amniotic membranes.

In 1976, the National Institute of Child Health and Human Development (NICHD) reported the results of a prospective multicenter collaborative study on amniocenteses.[28] A total of 1,040 women undergoing midtrimester diagnostic amniocentesis were compared to 992 matched controls. The overall accuracy of prenatal diagnosis in the am-

niocentesis group was 99.4%. In all the indices of morbidity and mortality studied, no statistical significant differences were seen between the amniocentesis group and the controls. The fetal loss rate (defined as spontaneous abortions, fetal deaths *in utero*, and stillborns), was 3.5% for the amniocentesis group and 3.2% in the controls. Birth weights, perinatal problems, neonatal complications, birth defects, and growth, development, behavior or intellectual function at one year of age were similar in both groups. The incidence of minor fetal injury (puncture mark on the back) was 0.1% in this study. However, others have reported an incidence of 1-3%.[29] The incidence of maternal complications in the NICHD study was 2%, consisting of vaginal bleeding or amniotic fluid leakage. One case of amnionitis (0.1%) was seen.

The Canadian collaborative study on prenatal diagnosis[30] was consistent with findings of the NICHD study. The outcome of 1,233 pregnancies monitored by midtrimester amniocentesis was compared with Canadian vital statistics data rather than matched controls. Again, fetal losses (3.4%) and neonatal deaths (0.7%) were not statistically different from the background control data, nor from the NICHD findings. Maternal complications (bleeding, cramps, amniotic fluid leakage) were reported in 3.6% of the study group. The overall accuracy of prenatal diagnosis was also 99.4%.

The United Kingdom collaborative study of 2,428 pregnancies, evaluated by amniocentesis matched with the same number of controls,[31] reported findings different from the U.S. or Canadian studies. They found a higher rate of fetal loss in the amniocentesis group (2.6%) compared to the controls (1.1%), and an apparent increase (1.0-1.5%) in idiopathic respiratory distress syndrome and major postural abnormalities (clubfoot, congenital hip dislocation). Important differences in the design and makeup of the British study from that of the U.S. make strict comparisons difficult.

More recently, the world experience on amniocentesis was reported by Simpson and Turnbull and colleagues.[32] Data from over 20,000 amniocenteses were reviewed. They concluded that the risk of fetal death before 28 weeks gestation is small and unlikely to be greater than 1%. In evaluating pregnancy outcome in studies without control data for comparison, the total fetal loss before 28 weeks gestation was 1.5-3.0%. Experience in recent years tended to show rates of fetal loss near the lower end of the range, suggesting that with increasing experience and increasing sophistication in the use of ultrasound, fetal loss has been reduced. Serious maternal risks were extremely rare, although minor abdominal discomfort or "cramping" following amniocentesis was not uncommon. The risk of amnionitis was 0.1%. Although maternal death had been known to occur from complications of induced abortion after an abnormal fetus had been diagnosed by amniocentesis, only one maternal death could be identified as being directly attributable to the complications of genetic amniocentesis.

From the above cited studies, one can conclude that the risks of amniocentesis to either the mother or fetus are extremely small.

Counseling the Patient

The patient, or ideally, the couple, should be thoroughly counseled prior to the amniocentesis. It is important that they understand their indication for having the procedure done, as well as the risks associated with it. The possibility of an unsuccessful amniocentesis, although rare, should be discussed. Likewise, the possibility of a successful amniocentesis but unsuccessful cell culture exists but is low (1-2%). Since fetal chromosomal and biochemical evaluations are dependent on cultured amniotic fluid cells, a failed culture would be unproductive of a test result.

Limitations of the test results should be explained, especially since the majority of fetal abnormalities are *not* diagnosable by amniocentesis. Normal amniocentesis results, therefore, can only rule out a specific abnormality for which the test was done (e.g., chromosal abnormality, Tay-Sachs disease) but does not rule out many other fetal abnormalities (e.g., cleft lip, or palate, heart defects) which are known to occur in 3-5% of all newborns.

Lastly, the availability of midtrimester abortion in the event an abnormal fetus is diagnosed should be discussed.

Amniocentesis Procedure

Transabdominal amniocentesis is usually performed by a skilled obstetrician as an outpatient procedure. Prior to the procedure, an ultrasound examination is necessary to verify fetal life, confirm gestational age, locate the placenta, and establish or rule out multiple gestation.

The optimal time for genetic amniocentesis is 16 weeks gestational age (14 weeks from conception). At this time there is sufficient amount of amniotic fluid, making the procedure technically easier and allowing optimal growth of cell culture. At the same time, it also allows the option of midtrimester abortion to be available in the event an abnormal fetus is diagnosed.

The patient is asked to void to avoid aspirating urine and a repeat ultrasound is performed to identify the optimal site of needle insertion. Using aseptic technique and local anesthesia, 30 to 40 cc of amniotic fluid is aspirated with a gauge 20 or 22 spinal needle. The sterile specimen can be easily packed without the need of refrigeration and transported within 24 hours to a certified cytogenetics laboratory capable of handling amniotic fluid specimens. Once the procedure is done, the patient is allowed to resume normal daily activity. She is counseled to report any severe cramping, vaginal bleeding, leakage of amniotic fluid, or fever. All Rh negative mothers with Rh positive husbands are administered Rhogam to prevent potential Rh isoimmunization.

Summary

Midtrimester amniocentesis enables us to diagnose many genetic disorders and congenital defects before birth with a high degree of accuracy. Examination of

amniotic fluid and cultured fluid cells allows the diagnosis of open neural tube defects, virtually all chromosomal structural and numerical abnormalities, and many inherited disorders. The risk of fetal loss is minimal, and the risk of major fetal injury is minute. For the mother, serious risks are negligible. Amniocentesis can provide couples at risk the option of selective termination of abnormal fetuses. Alternatively, it may allow them preparation for the birth of a defective child. Most of all, it can provide reassurance when normal results are obtained.

With the rapid advancement in medical technology, the numbers of genetic defects prenatally diagnosable have likewise rapidly increased. This, along with an increase in public awareness, is likely to result in an increasing demand for the procedure.

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The Study of 7th Cranial Nerve Anatomy

Editorial

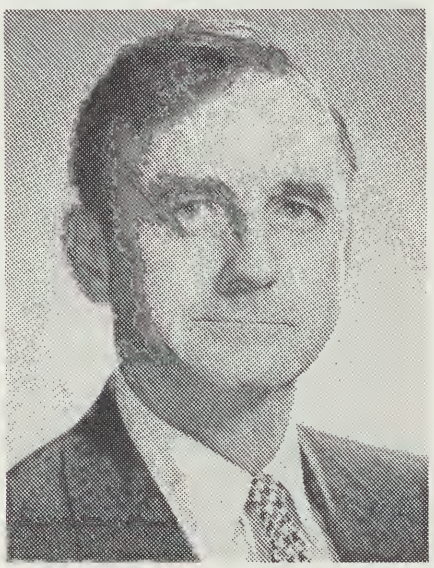
THE MEDICAL STUDENT commencing the study of anatomy can be overwhelmed by the wealth of detail associated with almost any structure, and lacking clinical experience, can become frustrated in distinguishing the important from the trivial, the distinction of course being the practical one of how useful the information may be in the practice of medicine.

A good example of useful minutia is the anatomy of the 7th cranial nerve. From its nucleus, in the pontine tegmentum, to its farthest peripheral ramification, it is vulnerable to a host of pathological entities. Knowledge of the anatomical detail can be helpful, not only in localization, but also in delineating possible etiology.

For example, a facial palsy associated only with an isolated ipsilateral lateral rectus palsy is very likely to be related to the anatomical fact that the 7th nerve, in its course of emergence from the lateral pons, loops over the nucleus of the 6th nerve; hence, a very small lesion can interrupt the function of both structures, suggesting multiple sclerosis or tumor as etiological considerations.

(The 6th nerve emerges from the brain stem in the midline, at the junction of the pons and medulla, a considerable distance from the 7th nerve; hence, a much larger lesion, or multiple lesions would have to be postulated to account for this limited symptomatology at this peripheral site, which would be a less probable explanation.)

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Or, take the example of the branch of the 7th nerve to the stapedius muscle, whose function is to dampen the oscillations of the tympanic membrane in response to loud sounds. Paralysis of the nerve causes hyperacusis on the affected side. Given a facial palsy with hyperacusis, the clinician knows the lesion to be proximal to the branch to the stapedius muscle. The odds would favor an inflammatory etiology. A hypoacusis, on the other hand, should arouse suspicion of a developing 8th nerve tumor.

Seventh nerve lesions run the full gamut of pathological possibilities from congenital absence (Moebius syndrome) through traumatic, inflammatory, vascular, toxic, metabolic, degenerative, and neoplastic categories. Oddly, the nerve is spared in amyotrophic lateral sclerosis, which is devastating to all motor structures below this level.

The point to be made is that 7th cranial nerve anatomy is practical anatomy.

The study of 7th nerve anatomy and pathology had its beginning with Sir Charles Bell (1774-1842), who was not only a skilled physician, but also a lucid writer, and a talented artist. His 1806 publication, *The Anatomy and Philosophy of Expression*, illustrates his powers of observation and his ability to transmit information to the reader through illustration and the written word.

Bell's interest in the subject of facial expression ultimately led to his discovery that the 5th cranial nerve was sensory to the face and motor to mastication, whereas it was the 7th cranial nerve alone that controlled the muscles of facial expression. These discoveries were made solely on the basis of anatomical dissection. Later, through clinical observation, Bell was able to detect the manifestations produced by pathology localized to the 7th nerve. Through his clear descriptions and drawings, his experience was passed on to posterity.

"A housemaid . . . 28 years old, presented herself here as an outpatient with the following symptoms. She had lost all power of moving the right side of her face. When she endeavored to raise her eyebrows the right side of her forehead remained smooth, and the left was wrinkled. When she attempted to close her eyes, the right eye was but partially covered, the eyeball rolling upward, and carrying the cornea within the curtain of the upper lid, which descended a little to meet it. When she smiled, the right side of the face remained immobile,

and it wore at all times a blank and expressionless character. When she was told to perform the action of blowing, the right cheek was puffed out like a loose bag, and the breath issued whether she would or not, at the right angle of her mouth . . .'' (Bell continues this case report with further detail). His word picture describes the condition now designated as Bell's palsy, the most common lesion of the 7th cranial nerve.

Since Bell's original observations on the anatomy and pathology of the 7th cranial nerve, a number of additional clinical entities have been recognized. These can be distinguished in large part by the clinician through his knowledge of anatomical detail, and his clinical ability to evaluate it.

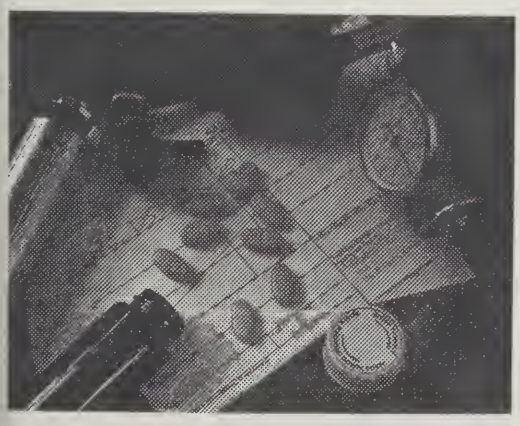
Clinical experience is the essential ingredient to fully accomplish this. Fortunately, as with Bell's example, a good amount of clinical experience can be passed along through the written word.

Jerry L. House, M.D., whose specialty is otorhinolaryngology, has translated his 7th nerve experience into a succinct article (pages 678 to 680) describing a number of these clinical-anatomical correlations. All 7th nerve palsies are not Bell's palsy. How can they be distinguished?

Dr. House' article describes the peripheral detail of the 7th cranial nerve, and a number of the various pathological conditions that can affect it, together with their treatments. The diagnosis of diseases of the 7th cranial nerve is clinical medicine at its scientific best.

Dr. House' article brings us up to date with this information, so that we should be able to tell if the facial palsy we're studying conforms to the condition described by Bell, or whether it's a different type of problem. The anatomy tells the difference.

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Disorders of the Facial Nerve

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The author reviews the diagnosis and treatment of facial nerve disorders, including Bell's palsy, the most common lesion of the 7th cranial nerve . . .

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THIS IS A REVIEW of disorders commonly affecting the facial nerve. Emphasis is placed on diagnosis and treatment of those disorders involving the facial nerve within the temporal bone.

Facial nerve disorders are commonly seen by the primary care physician. The socially devastating consequence of any major dysfunction of the facial nerve is usually apparent to the patient and physician. Twitching, weakness or paralysis of the face are symptoms of an underlying disorder of the facial nerve. Many causes of facial paralysis are benign and self limiting and require little or no treatment. Other causes of facial nerve dysfunction may be life threatening. Facial nerve paralysis may be due to injury, inflammation, infection, tumor, or circulatory disturbances.

Anatomy

Supranuclear fibers from both frontal lobes innervate the frontalis and orbicularis oculi muscles. Due to the bilateral innervation of the forehead, a unilateral cortical lesion will result in paralysis of the lower face, but not the eyelids or forehead.

After leaving the brainstem the seventh nerve enters the temporal bone at the internal auditory canal (*Schematic Drawing*). The nerve courses forward in its fallopian canal in the temporal bone to the geniculate ganglion. Here parasympathetic nervous system efferent fibers leave the main nerve trunk to eventually supply the lacrimal gland via the greater superficial petrosal nerve. The facial nerve then courses posteriorly through the middle ear in close proximity to the ossicles. The nerve then descends in the mastoid portion after giving off a branch to the stapedius muscle. In the descending portion the chorda tympani nerve exits the main trunk. The chorda tympani carries both special sensory fibers from the taste buds as well as secretomotor fibers to the submandibular salivary gland. The facial nerve then leaves the temporal bone at the stylomastoid foramen to extensively branch and supply the muscles of facial expression. It is the loss of facial movement and lack of eye closure that is most deleterious to the patient when there is a paralysis of the facial nerve.

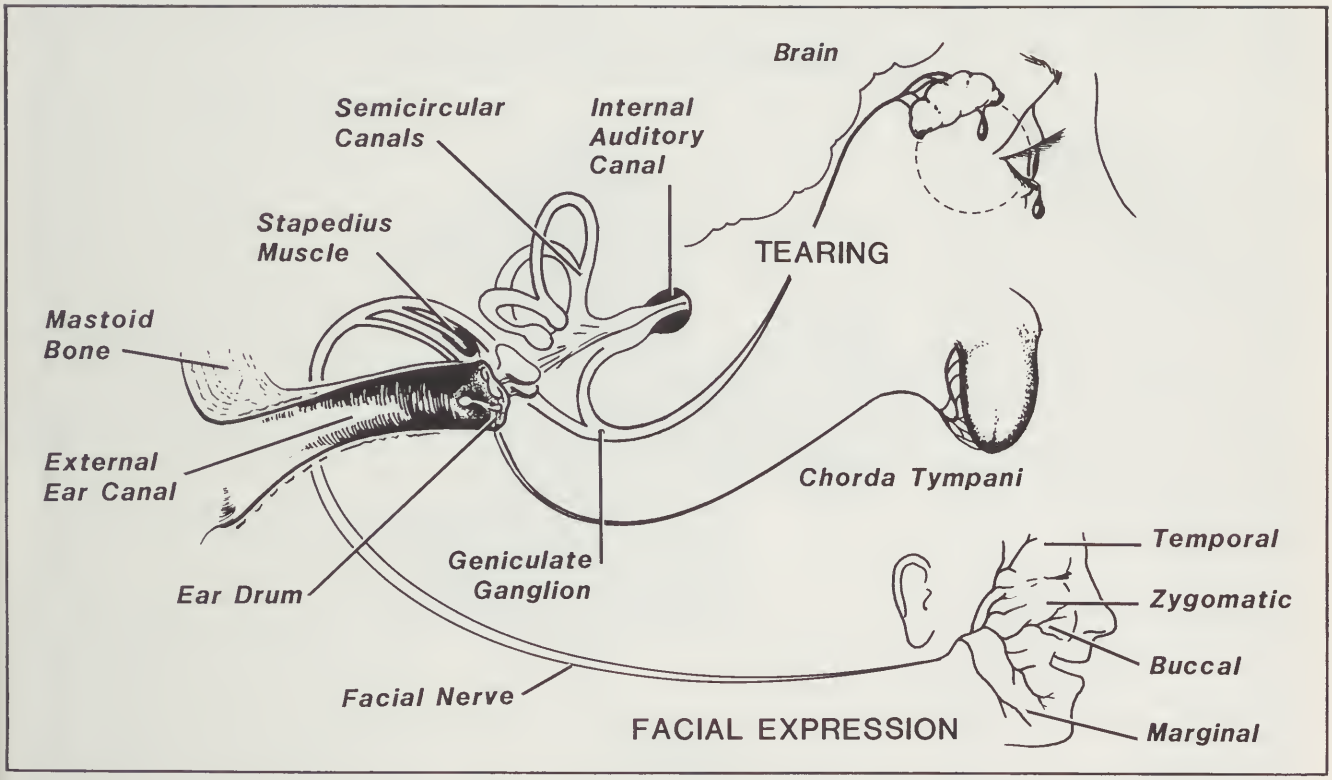
History

The patient usually notices a sudden onset of something happening in the face or an odd sensation about the face. Many patients will notice the weakness while brushing their teeth or eating. As the palsy worsens the patient is unable to wrinkle his forehead or close the eye and there is difficulty with mastication. The history should include questions about the onset of the facial paralysis. Was it gradual or sudden? Was there associated pain in or about the ear? Was there a rash on either the ear or tongue? Are there any other associated metabolic conditions such as diabetes?

Physical Examination

The physical examination should include a complete cranial nerve exam. The ear, nose, and throat should be carefully inspected. A schirmer tear test using pre-cut test strips is often helpful in determining if the lacrimal gland innervation has been affected. The ear is examined for any evidence of herpetic involvement or otitis.

It should be determined if the palsy is complete or incomplete. Examination should consist of visualization of each individual motor branch. The patient is asked to wrinkle the forehead to test the temporal branch. The patient is then asked to close his eyes. The function of the midface or buccal branches is tested by asking the patient to smile. The marginal mandibular branch of the facial



SCHEMATIC DRAWING of the facial nerve leaving the brainstem: The nerve gives off several branches while in its bony fallopian canal in the temporal bone. The nerve then leaves the temporal bone to supply the muscles of facial expression.

nerve is assessed by asking the patient to whistle.

The parotid gland is carefully palpated for any masses or nodes. The neck is palpated for any adenopathy. A palsy may involve a discreet branch or branches, with paralysis of only a part of the face. This is highly suggestive of a tumor in the parotid gland. A lesion involving the nerve within the temporal bone will usually produce a complete peripheral or lower motor neuron paralysis.

Note should be made of the condition of the eye, adequacy of eye closure, and presence of any Bell's phenomenon. Bell's phenomenon is the upward rolling of the globe upon closure of the eye. If there is significant exposure of the cornea, eye protection should be instituted.

Special Test

Diagnostic studies may include pure tone audiometry, tympanometry, acoustic reflexes testing, polytomes of the temporal bones or high resolution CT scan. Evaluation of the vestibular system with electronystagmography may be helpful.

Electrical tests are often useful in facial nerve paralysis. In acute cases, electromyography is of little help and one must rely on nerve excitability tests such as the Hilger nerve stimulator. These tests will reliably tell a conduction block or neuropraxia from a degenerative neuronotmesis. These tests will not reliably differentiate between a lesion of the axon and a more severe degeneration of the nerve Schwann cell sheath.

Causes of Facial Paralysis

Bell's palsy is the name given to primary idiopathic facial paralysis. This is the most common type of facial paralysis. It is caused by nerve swelling and edema within the bony fallopian canal in the temporal bone. Theories of etiology include viral infections, allergy, vascular lesions, and systemic diseases. Recently, the herpes virus has been implicated as the cause of many cases of Bell's palsy. Diabetes, pregnancy, and heredity are significant predisposing factors. Bell's palsy is usually considered a mononeuropathy. Recent reports would indicate that in certain cases this may be part of a generalized cranial polyneuropathy.[1]

The pathology of Bell's palsy is an epineural compression from edema which results in facial nerve ischemia and impairment of the microcirculation.[2] The edema may resolve or it may cause irreversible ischemic damage which would result in fibrosis of the nerve and subsequent poor return of function.

An otologic and neurotologic exam, including the cranial nerves, is performed. Then audiologic and appropriate radiographic, balance or special audiologic tests are performed. If the

palsy is complete, nerve excitability testing should be performed. Other causes of facial nerve paralysis should be excluded.

Treatment of Bell's palsy is controversial. To institute rational treatment of Bell's palsy one must have a knowledge of the natural cause of the disease. An excellent study of the natural course of Bell's palsy was done in Denmark.[3] In this study all patients with Bell's palsy were given no treatment. These patients were then re-evaluated periodically for several years. Seventy-one per cent of patients were found to have completely normal return of facial nerve function. Thirteen per cent had slight residual sequelae. This was defined as slight palsy with minimal contracture. Twelve per cent had moderate palsy with clearly visible contracture and associated mass movement. Four per cent of patients had severe disfiguring contracture and associated mass movement. Complete atonic facial palsy without contracture was not seen.

The role of steroids in treatment of Bell's palsy is still debated. A review of the literature would indicate that steroids may reduce the contracture and mass movement after resolution of the palsy, but may not hasten or improve the degree of recovery. In most patients, if there are no contraindications, steroids should be used. The role of surgical decompression of the nerve is still debated. Some patients are benefited by surgical decompression to relieve the pressure from the edema and improve the microcirculation of the facial nerve within the confines of the bony fallopian canal.

Herpes Zoster Oticus is a viral infection of the facial nerve. This is characterized by the onset of facial paralysis, usually preceded by pain in or about the ear or tongue. Development of typical herpetic vesicles either in the concha of the external ear or on the tongue is common. Herpes zoster oticus has a worse prognosis for normal return of function than does Bell's palsy. Surgical decompression may be indicated more often in these patients.

Other Causes of Facial Paralysis

Facial paralysis associated with acute otitis media is uncommon. In most of these patients, myringotomy should be done if the tympanic membrane hasn't already perforated, and appropriate antibiotic coverage given. If facial nerve function does not return promptly, or if there are any signs of mastoiditis, a simple mastoidectomy should be performed to drain the pus. Congenital recurrent facial nerve paralysis or Melkersson-Rosenthal Syndrome is associated with facial swelling and a fissured tongue.

Facial nerve trauma can result from temporal bone or basilar skull fractures. If the paralysis is immediate, it is assumed that the nerve has been lacerated and surgical exploration is indicated. If the palsy is delayed in onset, and is a complete paralysis, it is followed in the usual fashion with nerve excitability tests as for a Bell's palsy. Lacerations of the nerve are surgically repaired by end-to-end anastomosis or by cable graft.

Primary tumors of the facial nerve are uncommon but do occur. Facial nerve paralysis which is gradual in onset is highly suspicious for either a primary benign facial nerve tumor within the temporal bone or a malignancy in the parotid gland. Any facial nerve paralysis that is atypical, painful, or is a branch paralysis should be highly suspect for tumor involvement. Metastatic disease to the facial nerve is uncommon but does occur. Tumors of the posterior fossa may cause facial paralysis. They are often associated with auditory, vestibular, or brainstem abnormalities.

Hyperkinetic Facial Nerve Disorders

Facial nerve spasm or hyperkinetic disorders of the facial nerve are uncommon. These usually take the form of hemifacial spasm. This is a repetitive jerking or spasm of one side of the face. Many people feel this is due to impingement on the nerve by a vascular loop in the posterior cranial fossa.[4] Essential blepharospasm is another uncommon disorder of the facial nerve. This is a recurrent spasm of both eyelids much like rapid blinking.

Eye Protection in Facial Nerve Paralysis

The most important thing for the physician treating facial nerve paralysis is proper care of the eye. If eye closure is not adequate to cover the cornea, care must be taken to prevent drying of the eye. Methylcellulous drops or artificial tears during the day, and lacrilube ointment at night are helpful to prevent drying. If there is any doubt as to the adequacy of eye protection, the eye should be taped to insure coverage of the cornea. Redness of the conjunctiva, staining of the cornea, or a foreign body sensation in the eye are warning signs that the cornea is not adequately protected.

Rehabilitation of Permanent Facial Nerve Paralysis

There are a variety of rehabilitative techniques available to patients with longstanding facial nerve paralysis. Many of these involve nerve substitution or use of slings to support the face. A hypoglossal-facial nerve crossover with the hypoglossal nerve as the donor proximal nerve is usually preferred. This hypoglossal-facial nerve crossover is very successful at restoring tone and adequate eye protection in facial paralysis of less than a few years' duration.

It must be remembered that not all facial nerve paralysis is Bell's palsy. Each patient deserves a careful work-up and an appropriate etiologic diagnosis. Serious or life-threatening causes should be excluded. The patient should be given the best chance for normal return of facial nerve function by offering appropriate medical or surgical treatment.

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Nonatherosclerotic Fibrous Ridges: A Previously Unrecognized Cause of Ostial Left Main Stenosis

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NARROWING AT THE AORTIC ORIGIN of a coronary artery (ostial stenosis) may result from atherosclerotic or non-atherosclerotic conditions primarily affecting either the aorta or the coronary artery. Atherosclerotic conditions such as syphilis[1] and homozygous Type II hyperlipoproteinemia[2] may cause severe coronary ostial narrowing secondary to severe plaquing in the ascending aorta. Non-atherosclerotic conditions such as pulseless (Takayasu's) disease,[3] fibromuscular hyperplasia associated with methysergide therapy[4] and aortic-valve replacement[5] may cause stenosis of a coronary ostium without involvement of ascending aorta.

The report which follows describes a necropsy patient with a previously unrecognized non-atherosclerotic cause of ostial left main narrowing.

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Case Report

A 56-year-old white woman was evaluated two months before death for vague abdominal pain. She had been previously healthy except for a 20-year history of episodic, nonexertional chest pain atypical of angina pectoris. She did not smoke tobacco. There was no history of diabetes mellitus or of systemic hypertension. No family members had coronary atherosclerotic heart disease. Physical examination revealed a small woman weighing 108 pounds and 66 inches tall with an indirect arterial blood pressure of 150/90 mmHg.

Precordial examination and a resting electrocardiogram were normal. The total serum cholesterol measured 183 mg/dl, serologic tests for syphilis were negative, and laboratory gastrointestinal and renal examinations were normal. In view of a 20-year history of vague atypical chest pain, an exercise treadmill test was performed. After nine minutes of exercise, 1-2 mm of ST segment depression occurred unassociated with chest or abdominal pain.

She underwent coronary angiography about 40 days before death. This disclosed a 70% diameter narrowing of the proximal left anterior descending artery (LAD) and normal remaining major coronary arteries. Four days before death she underwent percutaneous coronary angioplasty to dilate the LAD lesion. As the guiding catheter was positioned at the left coronary ostium, the patient became hypotensive, developed chest pain, and had ST segment elevation. Ostial LM stenosis was seen on fluoroscopic angiography (*Fig. 1*).

Because of hemodynamic instability, an intra-aortic balloon pump was inserted and the patient underwent emergency aorto-coronary bypass grafting, but died four days later of cardiogenic shock. Retrospective analysis of the coronary angiogram 40 days before death disclosed severe ostial LM narrowing.

At necropsy, the heart weighed 260 grams. Examination of the right and LM coronary ostia disclosed a high takeoff position of a normal round right coronary artery and an abnormal slit-like opening of the LM coronary artery (*Fig. 1, 2*). Transverse sectioning of the LM ostium disclosed two focal but asymmetric fibrous ridges projecting from the walls of aorta causing severe narrowing of the LM ostium (*Fig. 1, 2*).

Histologically, the shelf-like ridges were composed of dense fibrous tissue free of lipid or calcific deposits. The proximal LAD artery was focally narrowed 51-75% in cross-sectional area by typical atherosclerotic plaque composed of lipid, foam cells and fibrous tissue. The remaining portions of the LAD, right and left circumflex coronary arteries, the walls of ascending aorta and the renal arteries were normal. The left ventricular myocardium contained foci of necrosis.

Comments

Fibrous shelf-like projections from the wall of aorta into the LM coronary ostium producing severe luminal narrowing have not been previously described. The lack of diffuse coronary atherosclerosis and absence of atherosclerotic plaque in the ascending aorta suggests the fibrous ridge projections are non-atherosclerotic in origin.

Other non-atherosclerotic conditions previously recognized to be associated with coronary ostial stenosis, such as fibromuscular hyperplasia occurring with methysergide therapy and renal artery stenosis, and aortitis were not present in our patient.

The ridge-like projections in our patient are most similar to the ostial narrowing occasionally observed several months to years following selective high pressure coronary perfusion during cardiac surgery.[6] Catheter trauma of the LM ostium during coronary angiography

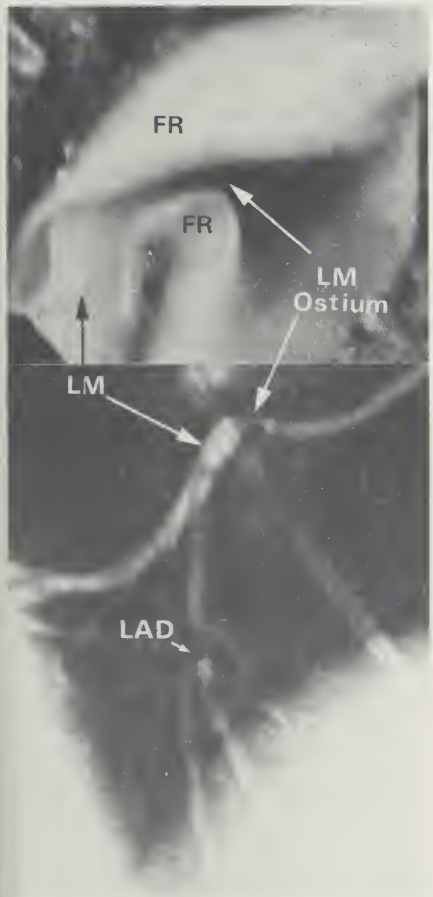


FIGURE 1: The left main (LM) coronary ostium at necropsy (top) shows severe luminal narrowing by fibrous ridges (FR) projecting from the wall of the aorta. A frame from the coronary angiogram (bottom), four days before death, shows narrowing of the LM ostium and proximal left anterior descending (LAD) coronary artery.

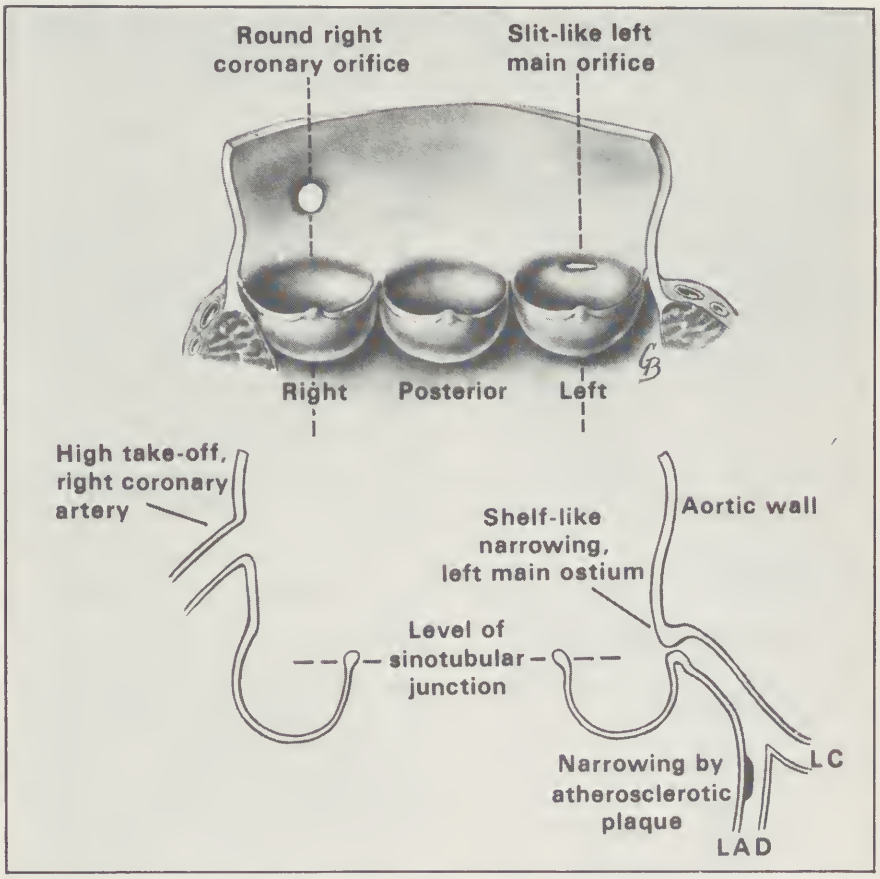


FIGURE 2: Diagram of the ascending aorta and aortic valve shows a slit-like left main ostium produced by fibrous ridges projecting from the wall of the aorta. The right coronary ostium arises 15mm above the sinotubular junction (high takeoff position), but is otherwise normal. LC = left circumflex; LAD = left anterior descending coronary arteries.

40 days earlier in our patient is a possible, but unlikely, cause for the ostial ridges in view of the short time interval from angiography to death, and the dense fibrous composition of the ridges.

Although the etiology of the fibrous ridges is unknown, the chronic (> 20 years) history of atypical chest pain suggests the ridges may have been present for years, and possibly from birth. Antemortem recognition of this type of ostial narrowing is only by exclusion of other atherosclerotic and non-atherosclerotic conditions associated with coronary ostial disease.

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Disorders of Potassium Balance

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The authors discuss the kidney's contribution to potassium balance and related problems such as hyperkalemia and hypokalemia . . .

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THE BODY OF A HUMAN ADULT contains approximately 3500-4000 meq of potassium of which 98% is in the intracellular compartment.[1] The average American adult consumes approximately 100 meq of potassium daily; 90% is absorbed from the gastrointestinal tract. Potassium is eliminated from the body through the kidneys, gut, and skin. Normally, neither the gut nor the skin are responsible for major potassium losses.

Renal Contribution to Potassium Balance

The kidney is the major excretory organ for potassium and provides the only controlled output. Essentially, all of the potassium filtered by the glomerulus is reabsorbed by the tubules and the potassium excreted in the urine is the result of tubular secretion of potassium. The proximal tubule absorbs 65% of the filtered potassium. The descending limb of the loop of Henle appears to be impermeable to potassium; however, the ascending limb absorbs an additional 20-25% of the potassium. This probably occurs by potassium passively moving along the electrical gradient produced by chloride absorbtion.

The distal tubule and the collecting duct can absorb potassium; however, under normal circumstances the collecting duct plays a small role in the renal handling of potassium. Passive secretion of potassium in the distal tubule accounts for most of the potassium excreted in the urine.

A number of factors affect the renal excretion of potassium, i.e., the availability of sodium, urine flow, urine pH, and aldosterone. The delivery of sodium to the distal tubule and collecting duct dictates to a considerable degree eventual potassium excretion. Increased delivery of sodium increases potassium excretion while diminished sodium in the terminal nephron reduces potassium excretion.

An increased rate of urine flow increases potassium output from the distal tubule and may be one factor in the increased excretion of potassium from the kidney under diuretic conditions. The more alkaline the fluid in the lumen, the greater the potassium secretion into the urine by the cells. The distal convoluted tubule is able to make the urine more alkaline by active absorption of cation, primarily sodium.

Factors which accentuate the luminal negativity such as the presence of increased amounts of poorly absorbed anions, i.e., bicarbonate, sulfate, acetoacetate, betahydroxybutyrate, will increase potassium secretion by the cells. Aldosterone increases the permeability of the distal tubular cell membrane to potassium, increasing the movement of potassium out of the cell into the luminal fluid.

Effect of Acid-Base Balance on Potassium Homeostasis

Acid-base balance exerts a major effect on serum potassium levels and on potassium excretion.[2,3] Metabolic alkalosis is associated with large deficits in chloride and in total body potassium due to increased potassium excretion. The chloride deficit, be it the result of nasogastric suction or following diuretic therapy, increases generation of bicarbonate from the renal tubules, elevating bicarbonate concentration in the serum and the amount of bicarbonate filtered by the glomerulus.

Bicarbonate is not readily absorbed by the tubular cells so the increased bicarbonate in the tubular fluid raises the pH and promotes potassium secretion. Reduced chloride and increased bicarbonate concentration in the proximal tubule also increase delivery of sodium to the distal tubule. The demand for

sodium conservation plus the reduced supply of absorbable anion (chloride) provide a continual stimulus for potassium secretion. The chloride deficit must be corrected or the alkalosis will persist.

Respiratory alkalosis is associated with very small perturbations in potassium balance. Potassium excretion increases at the onset of alkalosis, but returns to baseline levels within 24 hours. Chronic respiratory alkalosis is associated with insignificant potassium deficits.

Metabolic acidosis is characterized by a reduction in total body potassium content. Hydrogen ion moves into and potassium out of cells in systemic acidosis, and a patient may present with elevated serum potassium concentrations despite reductions in total body potassium. The deficit in total body potassium is a consequence of increased renal excretion of the ion early in the course of the acidosis. The osmotic effect of the glucosuria in diabetic ketoacidosis and the presence of nonabsorbable ketoacid anion, i.e., acetoacetate and betahydroxybutyrate, enhance potassium excretion.

Respiratory acidosis produces an early reduction in potassium excretion followed by increased potassium excretion, probably due to increased delivery of sodium to the distal tubules. This induces a moderate deficiency in total body potassium.

The effect of acid-base disturbances can be summarized as follows. The potassium deficit in sustained respiratory alkalosis is negligible, in respiratory acidosis, mild, in metabolic acidosis moderate, and in metabolic alkalosis, large.

Hyperkalemia

Hyperkalemia, defined as a serum potassium concentration of greater than 5.5 meq/L, may be due to increased intake, decreased excretion, or transcellular redistribution with movement of K^+ out of cells, *Table 1*.[4] Hyperkalemia may occur from increased exogenous potassium ingestion such as occurs with oral or intravenous potassium chloride supplements. Drugs administered as potassium salt such as penicillin may constitute a considerable potassium load (1.7 meq K^+/1 million units of penicillin). Endogenous potassium release occurs with cell breakdown from crush injury, burns, and major surgery releasing large amounts into the circulation (intracellular K^+ concentration is approximately 150 meq/L of cell water).

TABLE 1
Causes of Hyperkalemia

A. Increased Intake
   - Dietary
   - Iatrogenic
   - Cell Breakdown

B. Decreased Excretion
   - Renal Failure
   - Endocrine Disturbance
   - Drugs

C. Transcellular Shift
   - Acid-Base Disturbance
   - Drugs
   - Hyperglycemia

D. Spurious
   - Hemolysis of Sample
   - Elevated White Blood Cell or Platelet Counts

Most cases of hyperkalemia occur as the result of decreased excretory capacity such as occurs with acute or chronic renal failure. Life-threatening hyperkalemia may develop in a few hours in the setting of acute renal failure if there is associated tissue breakdown due to trauma, surgery, or sepsis. Patients with stable chronic renal failure generally have no difficulty with hyperkalemia unless the potassium intake is increased or excretion reduced by drugs.

Should hyperkalemia occur, a detailed dietary and drug history should be elicited, particularly for use of salt substitutes or potassium-sparing diuretics. Spironolactone, triamterene and amiloride all promote sodium excretion at the expense of potassium retention. The antihypertensive agent captopril, an angiotensen-converting enzyme inhibitor, can produce hyperkalemia in patients with compromised renal function.[5] Aldosterone generation and renal potassium excretion are reduced by this drug.

Non-steroidal antiinflammatory agents constitute another hazard for patients with even mild degrees of renal impairment. All agents of this class, including aspirin, reduce renal prostaglandin synthesis which leads to a reduction in renal function and hyperkalemia (see "The Effect of Non-Steroidal Antiinflammatory Agents on Renal Function", *The Journal of the Indiana State Medical Association*, page 334, May 1982).

Several clinical syndromes associated with abnormalities in the endocrine system predispose to decreased potassium excretion. Adrenal insufficiency with inadequate glucocorticoid and mineralocorticoid is generally well recognized by the association of vascular instability with hyperkalemia. A more common entity has recently been described in patients with mild to moderate degrees of renal impairment and hyperkalemia who have hyporeninemic hypoaldosteronism. Most cases have chronic interstitial nephritis, about half are diabetic and there is usually hyperchloremic metabolic acidosis. Isolated hypoaldosteronism also leads to hyperkalemia, but is an uncommon occurrence.[6]

Hyperkalemia may occur with a shift of intracellular potassium to the serum without an increase in total body potassium. This is seen in acute metabolic acidosis as hydrogen ions move into cells for buffering. Certain drugs such as succinylcholine or very high doses of digitalis inhibit cell uptake of potassium and may induce significant hyperkalemia. Cationic amino acids such as arginine monohydrochloride have been observed to induce transient egress of potassium from cells. Serum hypertonicity as is seen with hyperglycemia may induce potassium movement from the cells even in the absence of acidosis. Finally, there are spurious causes of hyperkalemia such as hemolysis of a blood sample, or extreme elevation of white blood cell or platelet counts with release of potassium when samples were allowed to stand before analysis.

Treatment of hyperkalemia is directed at prevention of cardiotoxicity since the most lethal effects are on cardiac function. Electrocardiographic changes are an invaluable guide in assessing cardiotoxicity. The earlist change will be peaking of the T wave followed by widening of QRS complex and prolongation of the P-R interval. First degree heart block, flattening and then disappearance of the P wave, and atrial standstill occur in succession. Delayed ventricular conduction, then fibrillation, will follow unless the serum potassium concentration is reduced.

Rapid infusion of calcium ion will reverse the membrane effects of hyperkalemia; however, this is contraindicated in the presence of digitalis toxicity. The usual dose is 10-30 ml of 10% calcium gluconate over several minutes with electrocardiographic monitoring. This merely buys time since hyperkalemia is not affected and signs of cardiotoxicity will reappear.

Lowering serum levels by redistribution of potasium into the cells may be accomplished by the infusion of insulin and glucose. Injection of 50 ml of 50% glucose followed by infusion of 10% glucose in water plus the addition of 10-20 units of insulin per 100 gm of glucose is usually sufficient.

Potassium movement into cells may be augmented by alkalinization, particularly if acidosis is present. One or two ampoules of sodium bicarbonate (44 or 88 meq) over a 5-10 minute period is very effective in this regard.

These measures will reduce serum concentration for a time, but the most important consideration is reduction of the total body potassium content by removal of potassium from the body. If renal function is intact, a short course of diuretics may suffice. Use of the gastrointestinal tract to increase potassium elimination may be necessary if renal excretion is impaired. Cation exchange resins (sodium polystyrene sulfate) can be given orally at 10-20 gm in aqueous suspension three to four times a day or may be given by retention enema, 50-100 gm in water and retained for 30-45 min. If renal and intestinal routes of potassium elimination are blocked, it may be necessary to resort to peritoneal or hemodialysis.

TABLE 2
Causes of Hypokalemia

A. Decreased Intake

B. Increased Renal Losses
- Diuretics
- Acid-Base Disturbance
- Alkali Load
- Renal Tubular Acidosis
- Endocrine

C. Extra Renal Losses
- Gastric Drainage
- Biliary Drainage
- Enterocutaneous Fistula
- Diarrhea
- Laxative Abuse

Hypokalemia

Hypokalemia, defined as serum potassium concentration less than 3.5 meq/L, is due to decreased intake or increased losses, *Table 2*.[7,8] Dietary deprivation alone seldom causes symptomatic potassium depletion unless the individual is hospitalized and maintained on a low intake, i.e., intravenous fluids. The majority of the cases of hypokalemia are due to excessive loss from the body either through the gastrointestinal tract or kidneys.

Gastrointestinal losses may occur at any level. The approximate concentrations of sodium and potassium in gastric intestinal fluids are seen in *Table 3*. Potassium losses due to vomiting or nasogastric suction, though moderate, are augmented by the loss of HCl leading to hypochloremic alkalosis which increases renal excretion of potassium as previously described.

TABLE 3
Sodium and Potassium Concentrations in Gastrointestinal Secretions meq/liter

	Sodium	Potassium
Gastric	20-30	10-15
Pancreatic	120-140	4-6
Biliary	140-150	4-6
Small Bowel	80-110	4-6
Diarrheal Stool	110-125	20-30

Loss of potassium from the small bowel may occur with cholera-like diarrhea, enterocolic fistula, biliary drainage, or the diarrhea seen with pancreatic islet cell tumors. Potassium loss from the large bowel occurs with ureterosigmoidostomies, absorption of sodium and chloride in exchange for potassium and bicarbonate, producing metabolic acidosis with hypokalemia. Considerable potassium loss occurs from the large bowel due to diarrhea induced by colonic villous adenoma and in the setting of chronic laxative abuse.

Renal loss of potassium is most commonly the result of diuretic therapy. The diuretic-induced loss of chloride increases bicarbonate generation, producing metabolic alkalosis which augments potassium excretion. Massive doses of penicillin or carbenicillin, when given as the sodium salt, result in the glomerular filtration of non-absorbable anions which promote potassium secretion by the distal tubule.

Excessive hormone production such as primary or secondary hyperaldosteronism or that seen with Cushing's syndrome is associated with potassium loss due to the increased permeability of tubular cells to potassium. Renal tubular acidosis, particularly the proximal form, is associated with considerable potassium wasting due to the large bicarbonate load delivered to the distal tubule. Amphotericin may produce proximal tubular injury and the same sequence of events. Carbonic anhydrase inhibitory drugs such as acetazolamide may transiently increase potassium loss, but this usually subsides with the onset of systemic acidosis. Osmotic diuretics such as mannitol increase potassium excretion but are generally given short term with no major effect on potassium balance.

Treatment of hypokalemia must be

undertaken with care since the magnitude of the potassium deficit is not readily measured clinically and the amount required to replace it cannot be predetermined. Some studies suggest that a decline in serum potassium concentration from 4 to 3 meq/L is associated with a 100 to 200 meq deficit and a further reduction to 2 meq/L is associated with an additional 200-400 meq deficit. Deficits are impossible to predict clinically since acid-base balance has such a major influence.

Oral potassium replacement is preferable since this minimizes the chances of transient hyperkalemia. Use of foods rich in potassium is the best way to replete deficits, but when additional replacement is necessary, liquid potassium chloride is used. Do not use potassium salts other than chloride, i.e., citrate or phosphate, in the patient with hypokalemic alkalosis. The chloride deficit must be corrected before potassium balance will be achieved.

Administration of potassium intravenously should not exceed 20 meq/hr unless the degree of depletion is life-threatening. A patient who presents with hypokalemia and metabolic acidosis will have profound potassium deficits. Patients with diabetic ketoacidosis may experience a precipitous fall in potassium concentration with treatment with insulin and may require high concentrations transiently. This should be done with careful electrocardiographic monitoring. Caution must be exercised in replacing potassium deficits in the patient with compromised renal function and should be accomplished slowly with dietary measures.

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Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
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Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	QUARZAN	QUESTRAN
Category:	Antispasmodic	Antihyperlipidemic
Brand Name:	Quarzan, Roche	Questran, Mead Johnson
Generic Name:	Clidinium Bromide	Cholestyramine
Dosage Forms:	Capsules	Powder
	MODANE	**MUDRANE**
Category:	Laxative	Antiasthmatic
Brand Name:	Modane, Adria	Mudrane, Poythress
Generic Name:	Docusate Sodium	(combination drug)
Dosage Forms:	Capsules	Tablets

EDITORIALS

Laryngeal Obstruction

No one is ever too young to have laryngeal obstruction. *JAMA* reports a three-month-old infant who swallowed a balloon that extended into both the right and left bronchi.

Actually, the report should say that the infant swallowed and inhaled the balloon. Anyway, due to the infant's history of wheezing, diagnosis and curative treatment was delayed.

Moral: Foreign-body aspiration should be considered in all cases of sudden respiratory distress regardless of age or medical history.

Salt-Fed Infants

Salt intake and hypertension are now considered to be connected as cause and effect. The most recent demonstration of this relation is reported from The Netherlands.

Four hundred and seventy-six newborn infants were randomly fed either a low-salt diet or a normal control diet. The salt-fed infants demonstrated a statistically significant rise in blood pressure. The difference was small but increased with months of life, suggesting a dose-response relation.

Fortunately, American baby food manufacturers have already omitted salt from their products. The next thing to do is to teach mothers of this fact and also, to remind them not to taste the baby's food and salt it to mother's taste.

Hepatitis B Vaccine

Major progress is reported by Biogen, Inc. toward production of a vaccine against hepatitis B by way of genetic engineering.

Biogen is an international biotechnology company making products developed through recombinant DNA research.

Genetically engineered yeast is used to produce the vaccine. The recombinant product is produced only from the virus' surface antigen—the protein portion that confers immunity—which is not in itself infectious. The recombinant process is, therefore, much safer than that of producing the vaccine by manipulating the live hepatitis B virus.

Drunk Driving Law

Steve Goldsmith, president of the Prosecuting Attorney's Association, and Dr. George Lukemeyer, president-elect of the Indiana State Medical Association, head up the ongoing statewide public service campaign to educate the public about Indiana's new drunk driving law which became effective Sept. 1.

The weekly average of 18 alcohol-related fatalities and injuries in Indiana is a sobering statistic and one that should and will be reduced.

The drunk driving law has undergone a major change that will substantially increase the certainty of punishment. It insures that everyone who drives drunk and is apprehended shall incur some punishment.

Additive-Free Diets

The additive-free diet was recommended at one time for treatment of hyperactive children. Careful double-blind studies of the effect of additives on hyperactive children and the effect on hyperactive children of a diet without additives demonstrates very little effect.

An article in the *Journal of the American Dietetic Association* by Morris A. Lipton, M.D., Ph.D. and James P. Mayo, M.D. reports the study and its almost negative results.

Dr. Lipton is quoted: "The behavioral changes we note have nothing to do with the additives. If there was any improvement at all, it may be attributed to the shift of the family focus on the child who caused changes in the way the entire family ate. It's purely psychological."

Health Care Costs

"Health care prices have behaved in recent years much as should have been expected."

The newsletter of the Indiana Hospital Association reports the above quote from John R. Virts in *Business Economics*. Mr. Virts is an economist with Eli Lilly and Company and writes and speaks frequently on the subject of "cost of medical service." He relates that general inflation, the labor intensity of health care, the behavior of wages during inflation and the pattern of labor productivity changes account for almost all of the medical care price inflation from 1965 to 1981.

Virts' article listed a number of specific inflationary factors present from 1972 to 1981:

- The increase in hospital unit labor costs, which rose at an average rate that was 16.6% higher than the rate used to calculate imposed inflation in the hospital sector.
- The increase in malpractice insurance premiums, which increased at an average annual rate four times higher than the rate of increase in the GNP deflator.
- The increase in food and utility prices, which were 29% and 66% more rapid than the rate of increase in the GNP deflator.

The IHA newsletter further quotes Mr. Virts: "Since these lie outside the control of hospital markets and providers, price controls are not likely to produce a substantial social benefit. The direction for effective changes in employer and public policy should be focused on patterns of actual health care consumption rather than on price regulation."

People Don't Get Sick in DRGs

Looking Back

On a recent Washington visitation, I detected among Congressmen and Senators, their staffers, and members of the Executive Branch of our government, a growing suspicion that prospective rate setting by the use of Diagnostically Related Groups (DRGs) would prove unfair to Medicare patients and be administratively overly complicated. There is a growing awareness that each hospitalization is unique, just as is each illness and patient, and unsusceptible to measurement of worth by a five digit code.

Our government is becoming aware that people don't get sick in Diagnostically Related Groups—it only seems so from a statistical distance. The DRG Plan calls for 479 codes with

CONTINUED ON PAGE 690

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regional variances and an increasing percentage of DRG reimbursement as the plan is phased in. Our government is looking at this scenario: People are different; patients are different; illnesses are different; hospitalizations, even for the same diagnosis, are different. For instance, patients hospitalized with the diagnosis of pneumonia have a vast difference in severity of illness. Our government knows that eventually the hospitals would come to pass on to the more severely ill patients increased costs—there must be an end to cost shifting sometime!

Also, patients frequently have three to four problems at the same time. For example, the patient hospitalized with pneumonia may additionally have hypertension, coronary artery disease, diabetes, and osteoarthritis. All of these problems impact upon the cost of hospitalization and duration of stay. Consider diabetes alone: This disease shows almost infinite variability from a condition indicated by a fasting blood sugar of 141 to a vastly more serious situation of insulin pump necessities for maintenance of life itself. How can one equate an almost ambulatory penumonia with a pneumonia complicated by the foregoing?

Furthermore, there is hospital sharing—some patients may be initially confined in one hospital and shifted to a tertiary care hospital later. Presumably, the hospital of discharge will be paid and then will share any leftover money with the hospital of initial admittance. Of necessity, at some point in time, hospitals will have to charge the more severely ill patient, the more intensively treated patient, the patient with the longer length of stay, more. Under such circumstances, the DRG Plan will come to reward the manipulative patient, the manipulative hospital or the manipulative physician and rob honest old folks on Medicare who are unable to pay for hospitalization beyond DRG allowance, and consequently, must be sent home or sent into debt or sent to another hospital.

Before this happens, hospitals will attempt to spread the cost among other non-Medicare patients and further increase insurance premiums—cost shifting to the private sector again!

And as if this were not complicated enough, our government plans to initiate DRG prospective reimbursement to physician fees in the outpatient setting.

It would seem that our senior citizens would rather cost share in Medicare (deductibles, co-payment, etc.)

Also, our government is coming to feel that the DRG Program is too complicated administratively. Nationwide, there is a growing repugnance for coding mentality and disdain for depersonalized medicine. Sure, the cost of medical care must be controlled but tested and logical methods must be used.

The AMA has clearly delineated concerns of the DRG Plan: lack of demonstrated effectiveness as a methodology for hospital payment, unknown impact on quality and accessibility and delivery of medical care, probability of further cost shifting from the Medicare Program to the private sector, and suspicion that administrative costs incurred by hospitals using DRGs will be greater than anticipated cost savings.

The thought that a hospitalization can be reduced to a five digit code is intriguing. But maintaining reasonable fairness to patients, hospitals, and physicians under the DRG Plan is impossible!

—Alvin J. Haley, M.D., Indianapolis

VD vs. STD

Gleanings From Retirement

The Victorian era is not yet over. We still live in an age of euphemisms, often aggravated by the bad habits of bureaucrats, accustomed to performing their routines in a maze of conundrums, surrounded by a fog of mysteries, all enclosed in a official shell of enigma. We all know that graveyards are now not even cemeteries—they are memorial parks. There are no longer any jails—they are part of the Department of Correction and the one in my home county is called the Security Annex (being an annex to the courthouse).

All of the above has been called forth from my ancient consciousness by the mistake of occasionally trying to "keep up" with modern medicine. I find that venereal disease is now sexually transmitted! According to the AMA News, the CDC (in Atlanta) is combatting STD (without ever consulting a good English dictionary). STD is a nicey-nice acronym for venereal disease (sexually transmitted, that is). Webster-Merriam Collegiate Dictionary gives the following: "venery, *n.* (L. *Venus Veneris* the goddess of love) Sexual intercourse; coition."

"Venereal, *adj.* . . .of or pertaining to venery, or sexual love; relating to sexual intercourse. 2. *Med a* Arising from sexual intercourse with an infected person, as in *venereal disease* (abbr. VD, V.D.), any of several diseases transmitted chiefly by sexual intercourse, as syphilis, gonorrhea, and lympho-granuloma. . ."

Why are we now afflicted with a different three-word, three-letter acronym (nine syllables) when the well-established two-word (six syllable) term is both inclusive and specific? I am afraid it harks back to the habits of bureaucrats mentioned in paragraph one of this little essay. One saving grace may be that we are not obliged to use STD. We can persist with VD if we like, confident that everyone will know exactly what we mean.—**A. W. Cavins, M.D., Terre Haute.**

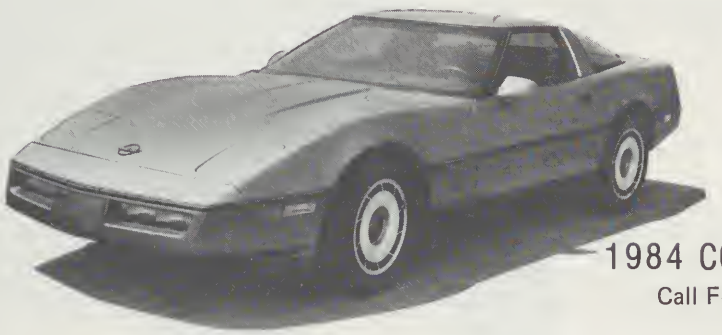
AMA Survey Shows That Doctors Like PMIs

Patient Medical Instructions have received a positive evaluation from physicians who have ordered them. In an opinion poll commissioned by the AMA, 86% of the physicians who have used PMIs reported satisfaction with the AMA product.

The survey found that 70% of physicians believe PMIs increase patient compliance, and 71% believe they increase patient satisfaction with the visit. Nearly half said PMIs would decrease their risk of malpractice claims.

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Legislative Specialty: How to Ignore Reality

The Voice of Business

JOHN MAYNARD KEYNES, a name that is anathema to many American conservatives, once observed: "We are all the slaves of some defunct academic scribbler. The world is ruled by ideas. In fact, it can be ruled by little else."

Keynes was trying to tell us that actions of political bodies must conform to reality or they are doomed to failure. That truism is neither liberal nor conservative.

Political bodies, alas, have a consistent history of ignoring reality if it's unpleasant. In the 1920s the Indiana General Assembly actually passed a law declaring the transcendental number "pi" (the value of the ratio of the circumference of a circle to its diameter) to be 3, presumably because remembering "3.14159 . . ." was too difficult.

In recent years, Congress has made a spectacle of itself by passing bills trying to repeal the most basic laws of economics. First, they tried to control all prices, then only energy prices, then only natural gas prices. In each case the merest school child could have predicted the result: To the extent prices were pegged below market clearing levels, shortages developed.

Have you sat in a gasoline line since President Reagan decontrolled oil prices two years ago? The list of persons who could stop the sun ends with Joshua; the list of statesmen who could legislate effectively when at odds with reality is shorter still.

Education Is No Exception

It's a shame we're repeating this sad history in education policy. There is now a considerable body of study which tells us what *will* work and *won't* work, but legislatures (including the U.S. Congress) persist in reinforcing what has been demonstrated to fail and ignoring that which shows promise. Some examples:



JOHN W. WALLS
President
Indiana State
Chamber of Commerce

1. In elementary grades up through perhaps grade 4, there is considerable evidence that the youngsters are doing as well or better than ever. Beyond that, performance falls off dramatically. Why?

Results of a recent landmark study by a team headed by renowned sociologist James Coleman (*High School Achievement: Public, Catholic and Private Schools Compared*) demonstrate that school discipline and the expectation of principals and teachers for student achievement, including homework, are very important to good education. The study indicates that success is not purchasable. It tends to occur not in high cost/low discipline schools but in schools where disruptive behavior is not allowed and students come to know they are all expected to achieve academically.

The legislative response? Throw more money at problem situations.

2. Much handwringing has taken place over the alleged shortage of teachers of mathematics and science in the public schools. To whatever extent such a shortage exists, it is the topic of rightful concern.

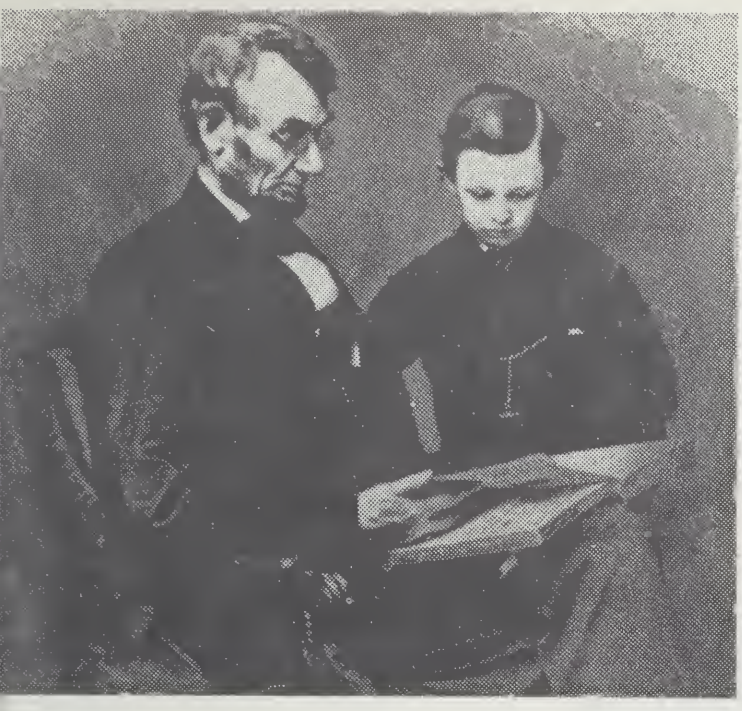
Now, anyone who has been through a basic economics course (and for that matter, most people who haven't) should recognize that math and science teachers have employment opportunities in the private sector which most other teachers don't have. The demand for their particular skills is different from the demand for teachers of English or social studies.

What the Market Dictates

This doesn't mean that math is more important per se than English, or that physics teachers are morally superior to history teachers. It just means the market is dictating higher salaries for math and science teachers.

Pay math and science teachers more than other teachers? "Holy salary differentials, NO!, Batman," is the response. Yet an experiment in the Houston (Texas) school system with direct bonuses for shortage area teachers has virtually eliminated vacancies in those areas.

Ah, well, it's nice to dwell on maybes and might-have-beens. What's that formula for the area of a circle again? A equals 3R-squared?



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On Speaking American

Accenting the Communication Gap



ALAN SEARLE, M.D.
Bedford

"'The English and the Americans are one people, divided by a common language," Winston Churchill once supposedly remarked. At least it is the sort of thing he would be expected to have said and, after four years in the States, I'm beginning to understand what he meant.

It took me nearly 30 years to develop my English accent. I now realize that, at my current rate of progress, it will take another 30 years to develop an American one.

I think it probably would have been easier if I had spoken only French or Swahili before coming here. Then I wouldn't have already learned English—I could just have learned American.

It's not that I still call trucks, lorries, or call cookies, biscuits; I use the American terms which, more often than not, are more precise than the English ones.

It's just that sometimes when I open my mouth all communication seems to stop. I have finally figured out that the problem is that I speak differently, but I'm not supposed to. I look American, or to be precise, just like any other Hoosier from this neck of the woods in Indiana, so that when I speak I'm expected to speak American. I don't, and so when I do open my mouth and the unexpected comes out, eyes glaze, and the invisible communication barrier appears.

I remember the first day we arrived in the States. We were stranded in the Chicago fog and the cab driver wanted to talk. But I couldn't understand him and he couldn't understand me. So I tried my best American accent—and then my wife couldn't understand me, either.

So now I try speaking slowly. It usually works, but now and then this happens:

"Take big breaths slowly, and quietly, in and out."

"Huh?"

"Take big breaths in and out."

"Huh?"

"Breathe deep, hon," says the nurse.

"Sure." And we start moving again.

We all have patients who listen to how we speak, rather than to what we have to say. But with me it's worse. I open my mouth and they give up. It becomes, "I don't know what he was saying, but he sure has a pretty accent."

It's like that in the supermarket, too. I patiently wait in line while the people in front of me exchange pleasantries with the check-out girl. My turn comes.

"How are you today, sir?"

"Fine, thank you, and how are you keeping?"

"Huh?"

I repeat myself and the communication usually starts again, but there again, for that brief moment, no one heard what I said. I suppose I could reply, "Fine, thank you, and what big breasts you have today," to see if it would have the same result—but I haven't the courage.

Fortunately, working in the E.R., most of the nurses have become used to my accent and are willing to act as interpreters. But occasionally, on a Saturday night, when all the other doctors have left town to watch a ball game, I'm called upon by an R.N., who works only two nights a month, to see an ailing inpatient. I have had some bizarre conversations.

"Humm, I see his serum creatinine is raised," I mumble.

"Yes, and he threw up his dinner, too."

"Oh. And how long has he been having this much digoxin?"

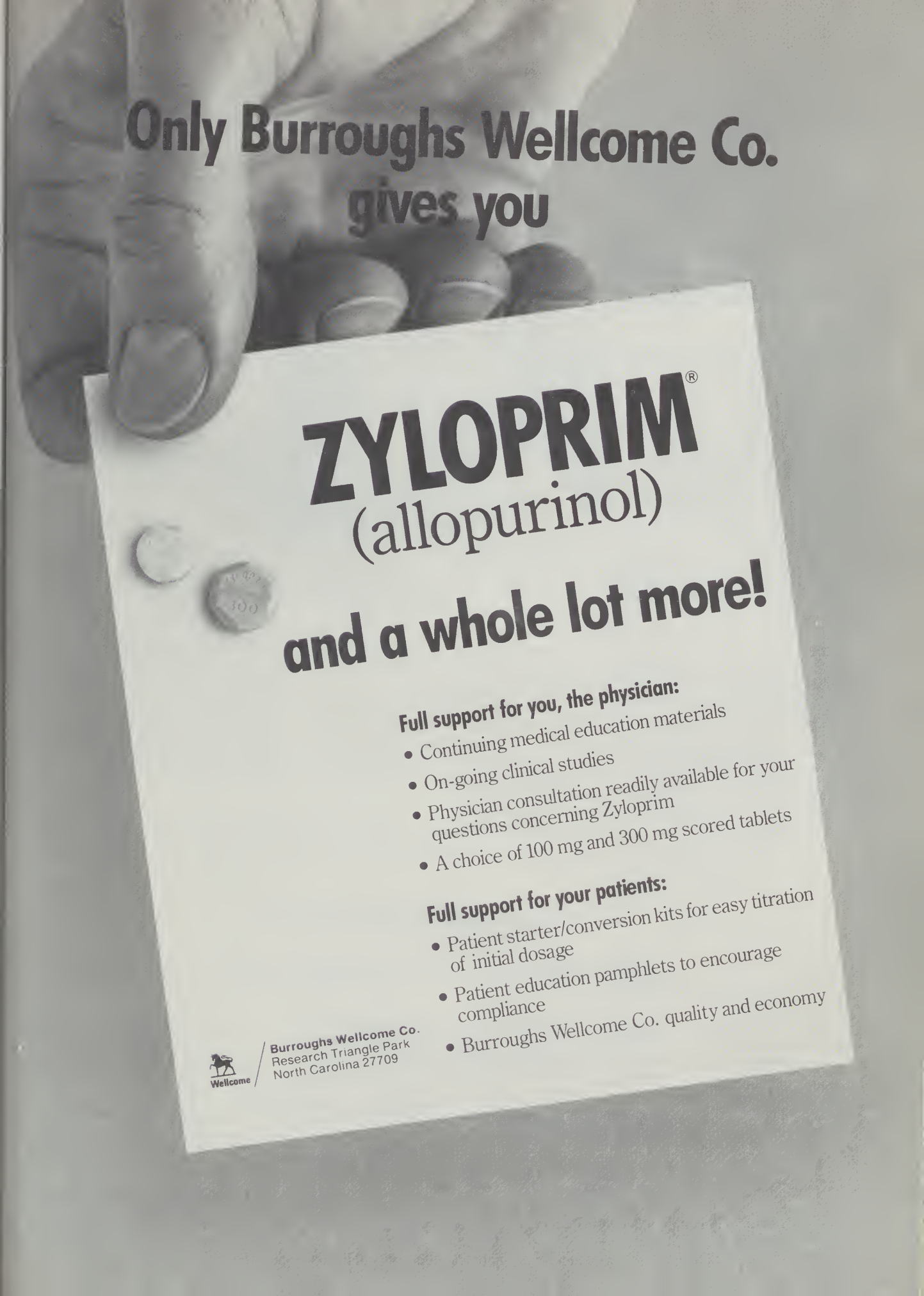
"No, his relatives went home."

"Ah," I sigh knowledgeably, and find out the rest from the chart, write the orders, and exit as gracefully as possible.

Of course, I still try to speak American at times, but since I'm told this sounds like a cross between Mae West and Kojak, I'm reluctant to use this trump card. Unfortunately, when I do play it, it sends the rest of the E.R. staff into hysterics. Since the patient still can't understand me, he often thinks I have uttered some extremely erudite witticism at his expense, which could be dangerous for me.

So I'll soldier on—only another 26 years and you'll never know the difference.

The author is an Emergency Room physician at Dunn Memorial Hospital, Bedford, Ind.


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AUXILIARY REPORT

Hulda Classen (Mrs. Peter)
President, ISMA Auxiliary

Ruth Gattman (Mrs. G. Beach)
Elkhart

Today, more and more health legislation is being enacted by our state legislature. The ISMA, in an effort to become more effective legislatively, is in the process of updating and refining its legislative key contact list and will include Auxiliary members for the first time. The goal is to have at least one physician and one auxilian as key contact for each Indiana congressional office and for each member of the General Assembly.

What is a "Key Contact"? A Key Contact is someone who already knows, or is willing to get to know, a state or federal legislator personally. To be effective, a KC must be informed about current and proposed health legislation and must be willing to contact the legislator when the need arises.

Key Contacts are carefully selected, trained and kept up to date on medical legislation. Skippy Adkins, South Carolina Auxiliary legislation chairman, who shares responsibility for the S.C. joint medical society-auxiliary Key Contact system, writes, "Establishing a KC takes work and usually requires personal contact. Continuity is also a key.

"Key Contacts do not change each time the officers change, but continue on as long as they are interested and effective, or until their legislator is defeated."

One "must," according to Skippy, is that Key Contacts have to know what they are talking about. "Though the auxiliary started their KC before the state society, it is now a joint effort and both endorse it enthusiastically."

This fall, a special workshop will be held for all ISMA-Auxiliary Key Contacts. Designed to educate and inform, it will provide a forum for questions and comments. In addition, all Key Contacts will be placed on the ISMA legislative mailing list.

If you have ever worked very hard to have a piece of legislation passed and have seen it defeated by only one or two votes you know full well the importance of knowing each legislator personally. Legislators, like you or I, respond best to people they know and respect.

The next two sessions of the General Assembly will present great challenges for medical practice, and we must be well prepared and organized at the grass roots level. The Key Contact program can provide the organization and structure to get the job done.

The Auxiliary is delighted to be a part of the KC program and looks forward to working closely with the ISMA on this challenging and exciting program.

P.S. If you would like further information on the KC program, please contact Don Foy or Richard King at the ISMA. They will be happy to assist you.

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Yet another benefit Valium affords is flexibility. Available in 2-mg, 5-mg and 10-mg scored tablets, Valium enables you to titrate dosage to individual patient needs. For the geriatric patient, a starting dosage of 2 to 2½ mg once or twice a day is recommended. And, for patients who forget or skip medication, you can prescribe Valrelease™ (diazepam/Roche) 15-mg slow-release capsules, knowing that Valrelease will assure all the benefits of Valium 5 mg *t.i.d.* with the convenience of once-a-day dosage.

Discontinuation of Valium (or Valrelease) is typically as smooth as its start in short-term therapy. However, Valium and Valrelease should be discontinued gradually after more extended treatment. As you diminish dosage, the built-in tapering action of Valium and Valrelease will help avoid rapidly recurring anxiety symptoms and symptoms of withdrawal, and will help ease the patient's transition to independent coping when therapeutic goals have been achieved.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome. *Oral forms* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures; tetanus; anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion.

The effectiveness of diazepam in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Tablets or capsules in children under 6 months of age; known hypersensitivity; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

> ***Usage in Pregnancy*: Use of minor tranquilizers during first trimester should almost always be avoided because their use is rarely a matter of urgency and because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral forms adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE: *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins,* i.e., *dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Injectable Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest; concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea; have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least 1/3, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs.

Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of diazepam, *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed and tolerated).

The clearance of diazepam and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

INJECTABLE: Although promptly controlled, seizures may return; readminister if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, observed in patients during and after diazepam therapy are of no known significance.

INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.

In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Dosage: Individualize for maximum beneficial effect.

ORAL: *Adults:* Anxiety disorders, relief of symptoms of anxiety—Valium (diazepam/Roche) tablets, 2 to 10 mg b.i.d. to q.i.d.; or 1 or 2 Valrelease capsules (15 to 30 mg) daily. Acute alcohol withdrawal—tablets, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; or 2 capsules (30 mg) the first 24 hours, then 1 capsule (15 mg) daily as needed. Adjunctively in skeletal muscle spasm—tablets, 2 to 10 mg t.i.d. or q.i.d.; or 1 or 2 capsules (15 to 30 mg) once daily. Adjunctively in convulsive disorders—tablets, 2 to 10 mg b.i.d. to q.i.d.; or 1 or 2 capsules (15 to 30 mg) once daily.

Geriatric or debilitated patients: Tablets—2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated (see Precautions). Capsules—1 capsule (15 mg) daily when 5 mg oral Valium has been determined as the optimal daily dose.

Children: Tablets—1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use in children under 6 months). Capsules—1 capsule (15 mg) daily when 5 mg oral Valium has been determined as the optimal daily dose (not for use in children under 6 months).

INJECTABLE: Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)

For dosages in infants and children see below; have resuscitative facilities available.

I.M. use: by deep injection into the muscle.

I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., *dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcohol withdrawal, 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses); in children *administer I.V. slowly*; for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary; in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available.

Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary, keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. Infants (over 30 days) and children (under 5 years), 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). Children 5 years plus, 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred); repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.

In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure; if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M.; in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectable form, patient may be placed on oral form if further treatment is required.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure; employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension. Dialysis is of limited value.

How Supplied:

ORAL: Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100 and 500; Prescription Paks of 50, available in trays of 10; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25 and in boxes containing 10 strips of 10.

Valrelease (diazepam/Roche) slow-release capsules—15 mg (yellow and blue), bottles of 100; Prescription Paks of 30.

INJECTABLE: Ampuls, 2 ml, boxes of 10; Vials, 10 ml, boxes of 1; Tel-E-Ject® (disposable syringes), 2 ml, boxes of 10. Each ml contains 5 mg diazepam, compounded with 40% propylene glycol, 10% ethyl alcohol, 5% sodium benzoate and benzoic acid as buffers, and 1.5% benzyl alcohol as preservative.

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1983 ISMA RESOLUTIONS

The following resolutions will be presented to the House of Delegates of the Indiana State Medical Association during the 134th Annual Convention, to be conducted October 14-17, 1983, at the Executive Inn in Evansville, Indiana. Members of Reference Committees were listed on Page 618 of the September issue of The Journal; they are repeated on Page 10 of the Delegate's Handbook.

RESOLUTION 83-1
Introduced by: Indiana Orthopaedic Society
Subject: Foot Surgery
Referred to: Reference Committee No. 5

Whereas, Many patients are being seen with painful plantar scars, neuromata, adherent extensor tendons, improperly done metatarsal osteotomies, and chronic, low-grade inflammatory reactions in post-operative foot wounds; therefore be it

Resolved, That Indiana State Medical Association officers discuss these problems with all organizations of practitioners who do foot surgery, and be it further

Resolved, That close monitoring of foot surgeries be done by hospital surgical, infection, and tissue committees, and be it further

Resolved, That granting of surgical staff privileges in hospitals be done in a manner to assure the highest specialized competency in those practitioners doing foot surgery.

RESOLUTION 83-2
Introduced by: Commission on Medical Education
Subject: Commission on Medical Education Bylaws Update
Referred to: Reference Committee No. 2

Whereas, In order to more accurately reflect the change of the Commission on Medical Education as defined in 7.0809 of the ISMA Bylaws; therefore be it

Resolved, That Section 7.0809 of the Bylaws be amended to read:

"7.0809 The Commission on Medical Education: The Commission on Medical Education shall maintain liaison with and be of assistance to medical schools and the medical licensing board. It shall keep in contact with and endeavor to

assist in improving and maintaining high quality undergraduate, graduate and continuing medical education and public school health education within the state. The Commission on Medical Education with the assistance of its Subcommission on Accreditation shall serve as the Indiana State Medical Association state's accrediting body to accredit institutions and organizations for the presentation of intrastate continuing medical education programs."

RESOLUTION 83-3
Introduced by: Commission on Constitution and Bylaws
Subject: Intern and Medical Resident; Medical Student Societies
Referred to: Reference Committee No. 2

Resolved, A new Section 12.00 and its subsections be added to the current Bylaws. All following sections/subsections be renumbered accordingly.

12.00 OTHER COMPONENT SOCIETIES

12.01 Charters: All component societies now in affiliation with this Association and those which may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and Bylaws, or those of the American Medical Association, shall receive a charter from and become a component part of this Association. The acceptance or retention of this charter shall be regarded as a pledge on the part of said component society to conduct itself in harmony with the letter and spirit of this Constitution and Bylaws and other rules and resolutions of this Association. Charters shall be issued only upon approval by the Board and shall be signed by the President and Executive Director of this Association. The Board shall have the authority to revoke the charter of any component society whose actions are in conflict with the letter and spirit of this Constitution and Bylaws or those of the AMA.

12.02 Constitution and Bylaws: Each component society shall have its own Constitution and Bylaws, which shall not be in conflict with the Constitution and Bylaws either of this Association or the American Medical Association. An up-to-date copy thereof shall be filed with the Executive Director of the Indiana State Medical Association not later than May 1 of each calendar year, or where such copy is so on file and no change has been made, then it shall be sufficient to file a certificate to that effect with the Executive Director.

12.03 Intern and Resident Medical Society (IRMS):

12.0301 Composition: Residents or Interns enrolled in AMA accredited programs in the State of Indiana shall be eligible to join the Intern Resident Medical Society with all rights and privileges as a regular member of ISMA. This society shall be allowed to send one delegate

or alternate delegate to the House of Delegates with full voting privileges. Any member of this society shall be eligible to hold office. There shall be only one IRMS.

12.0302 Organization: This society shall be organized similarly to other component medical societies. Upon call of the President, all eligible interns and residents shall be invited to join the IRMS by attending an organizational meeting as soon as expeditiously possible. Appropriate officers shall be elected by those in attendance in order to conduct the affairs of this society. This society shall then become a component medical society.

12.0303 Secretarial Duties: The Secretary of the IRMS component society shall keep a roster of all its members in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary.

12.0304 Dues: The IRMS member shall pay dues to ISMA at 20% that of the regular member, rounded off to the nearest whole dollar which shall entitle the member to full rights and privileges of ISMA membership. These dues shall be collected in accordance with ISMA Bylaws. No relief of dues shall be possible.

12.04 Medical Student Society

12.0401 Composition: Medical students actively enrolled in an accredited medical school in Indiana are members of this society with all rights and privileges as described in 1.0104.

12.0402 Organization: The Student Council of the Indiana University School of Medicine shall elect a student delegate and alternate delegate from nominees presented to them from each class. All resolutions introduced in the name of the student body must be presented through the Student Council functioning as the executive body of the student members - in effect, a student component society.

12.0403 Dues: Medical Student members shall be assessed no dues, but may subscribe to THE JOURNAL at the current rate determined from time to time by the Board of Trustees.

12.0404 Secretarial Duties: The Secretary of the Student Medical Society shall submit to ISMA each year a roster of medical students actively enrolled in an accredited medical school in Indiana.

RESOLUTION 83-4

Introduced by: Commission on Constitution and Bylaws

Subject: Section 12.09, Page 92, ISMA Bylaws "Recommendation of Nominees to the Board of Directors of Mutual Medical Insurance Inc."

Referred to: Reference Committee No. 2

Resolved, That section 12.09 be deleted from the Indiana State Medical Association Bylaws.

RESOLUTION 83-5
Introduced by: Commission on Constitution and Bylaws
Subject: Quorums
Referred to: Reference Committee No. 2

Whereas, Our current Bylaws do not specify the number of members needed to be present to constitute a quorum of the Executive Committee, ISMA commissions and ISMA committees; and

Whereas, Sturgis states, "Until a quorum is present, there can be no meeting"; therefore be it

Resolved, That a new section 6.02 be added to the Bylaws as follows:

6.02 Quorum: Four (4) members of the Executive Committee shall constitute a quorum. And be it further

Resolved, That a new section 7.06 be added as follows:

7.06 Quorum: Unless otherwise specified, those members present at a committee or commission meeting of ISMA shall constitute a quorum.

RESOLUTION 83-6
Introduced by: Ad Hoc Committee to Reduce Drunk Driving
Subject: Standing Committee of ISMA (Reduce Drunk Driving)
Referred to: Reference Committee No. 5

Whereas, The Ad Hoc Committee to Reduce Drunk Driving has made a 10-year pledge to reduce drunk driving by 50% in five years and an additional 25% during the following five years; therefore be it

Resolved, That the present Ad Hoc Committee to Reduce Drunk Driving become a standing committee of the Indiana State Medical Association.

RESOLUTION 83-7
Introduced by: Ad Hoc Committee to Reduce Drunk Driving
Subject: Students Against Drunk Driving
Referred to: Reference Committee No. 5

Whereas, The Ad Hoc Committee to Reduce Drunk Driving has found Students Against Drunk Driving (SADD) to be a most worthwhile and productive organization; and

Whereas, The Ad Hoc Committee to Reduce Drunk Driving has gone on record in support of SADD; therefore be it

Resolved, That the component county medical societies of ISMA recognize Students Against Drunk Driving; and therefore be it further

Resolved, That the county medical societies assist their high schools in the implementation and/or functions of SADD.

RESOLUTION 83-8
Introduced by: Ad Hoc Committee to Reduce Drunk Driving
Subject: Affirmation of Pledge to Reduce Drunk Driving
Referred to: Reference Committee No. 6

Whereas, The Indiana State Medical Association's Ad Hoc Committee to Reduce Drunk Driving has made a 10-year commitment toward the goal of reducing drunk driving, therefore be it

Resolved, That this House of Delegates reaffirm the pledge of the ISMA Ad Hoc Committee to Reduce Drunk Driving to reduce drunk driving by 50% during the next five years and to further reduce drunk driving by an additional 25% during the following five years; and be it further

Resolved, That the Indiana AMA delegation urge the AMA House of Delegates to adopt this same commitment.

RESOLUTION 83-9
Introduced by: Vanderburgh County Medical Society
Subject: Nursing Home Admittance
Referred to: Reference Committee No. 5

Whereas, Some nursing homes do not admit hospitalized patients discharged on Friday until the following Monday; and

Whereas, This practice results in an unjustified extended stay in the hospital; and

Whereas, The patient's medical coverage may thus be denied for those days; and

Whereas, Hositalized care is more costly than care provided in nursing homes; therefore be it

Resolved, That nursing homes in Indiana be urged and encouraged to admit patients over the weekend.

RESOLUTION 83-10
Introduced by: Indiana Orthopaedic Society
Subject: Licensing of Athletic Trainers
Referred to: Reference Committee No. 3

Resolved, That the state of Indiana license athletic trainers who are qualified by education and examination and who meet the standards of the National Athletic Trainers Association.

RESOLUTION 83-11
Introduced by: Section on Nervous and Mental Disorders
Subject: Rename ISMA Specialty Section
Referred to: Reference Committee No. 2

Whereas, It is clearly recognized that Psychiatry and Neurology share many common areas of training and expertise necessary to the diagnosis and treatment of conditions involving the nervous system, and

Whereas, The title Nervous and Mental Diseases is antiquated and does not reflect the terminology now commonly employed by physicians and patients, and

Whereas, In recent years there has been an increased emphasis on Neurology as a specialty and an increasing division of practice into straight Psychiatry or Neurology with fewer physicians practicing the specialty of Neuropsychiatry, and

Whereas, It is increasingly common for hospital staff sections to be divided into separate Psychiatry Sections and Neurology Sections; therefore be it,

Resolved, That the Indiana State Medical Association change the name of the Nervous and Mental Diseases Section to a Section on Psychiatry and a Section on Neurology, but that each Section remember their commonality and be encouraged to work together and have some joint meetings to promote their mutual interests.

RESOLUTION 83-12
Introduced by: John A. Knote, M.D., President
Subject: Proportionate Representation for Medical Student Component Society
Referred to: Reference Committee No. 2

Whereas, The future of medical practice belongs to the students; and

Whereas, There is greater and more appropriate involvement of medical students on a national level; and

Whereas, The Indiana State Medical Association has gained an alternate AMA delegate and an AMA delegate by virtue of including students in our membership count; therefore be it

Resolved, That a Medical Student Component Society is entitled to send voting delegates, the number based on membership in that society, to any official meeting of the ISMA House of Delegates.

RESOLUTION 83-13
Introduced by: Lake County Medical Society
Subject: Amendment to the Indiana Insurance Statutes
Referred to: Reference Committee No. 3

Whereas, It is common practice with insurance companies to honor the insured's assignment of his benefits to the qualified provider of his choice; and

Whereas, Insurance contracts which preclude such assignments may be detrimental to the physician-patient relationship and be unacceptable in principle to physicians; and

Whereas, The Indiana statutes dealing with payment of insurance benefits are ambiguous, particularly in regard to group contracts; and

Whereas, Recognizing his right to assign benefits to the provider preserves the insured's right to free choice of providers and promotes satisfactory physician-patient relationships; therefore be it

Resolved, That the Indiana State Medical Association undertake a legislative program to amend the Indiana insurance statutes to allow assignment of benefits at the written direction of the insured in both individual and group contracts.

RESOLUTION 83-14
Introduced by: John A. Knote, M.D., President
Subject: Past Presidents/IMPAC
Referred to: Reference Committee No. 3

Whereas, ISMA past presidents are among the most knowledgeable and experienced members in the state in political matters relating to our organization, and

Whereas, ISMA political activity must receive continual strengthening in order to perpetuate and improve the quality of medical care for our patients; therefore be it

Resolved, That the three most recent past presidents become voting members of IMPAC.

Fiscal Note: $100.00 per meeting.

RESOLUTION 83-15
Introduced by: John A. Knote, M.D., President
Subject: Past Presidents/Commission on Legislation
Referred to: Reference Committee No. 3

Whereas, ISMA past presidents are among the most knowledgeable and experienced members in the state in political matters relating to our organization, and

Whereas, ISMA political activity must receive continual strengthening in order to perpetuate and improve the quality of medical care for our patients; therefore be it

Resolved, That the three most recent past presidents become voting members of the Commission on Legislation.

Fiscal Note: $100.00 per meeting.

RESOLUTION 83-16
Introduced by: John A. Knote, M.D., President
Subject: New ISMA Commission on Substance Abuse
Referred to: Reference Committee No. 5

Whereas, Lives lost and dollars consumed by conditions and accidents related to substance abuse in America is one of our most tragic preventable situations; and

Whereas, The Ad Hoc Committee to Study Drunk Driving has made such an appropriate contribution to ISMA and to the safety and well-being of citizens of Indiana this year; therefore be it

Resolved, That a Commission on Public Awareness and Prevention of Substance Abuse be established within ISMA.

Fiscal Note: $500.00 per meeting.

RESOLUTION 83-17
Introduced by: John A. Knote, M.D., President
Subject: New Ad Hoc Geriatrics Committee
Referred to: Reference Committee No. 5

Whereas, The percentage of patients in the geriatric group is increasing regularly; and

Whereas, The medical problems of the geriatric age group frequently require special attention or variation from approaches used with other age groups; therefore be it

Resolved, That an Ad Hoc Geriatrics Committee be established within ISMA to study the special considerations of patients in this group and to communicate with geriatric organizations; with the goal that this committee might ultimately become a commission.

Fiscal Note: $165.00 per meeting.

RESOLUTION 83-18
Introduced by: John A. Knote, M.D., President
Subject: Standing Commission of ISMA (Sports Medicine)
Referred to: Reference Committee No. 4

Whereas, A significant portion of many members' patients have sports-related injuries; and

Whereas, A greater percentage of the U.S. gross national product is actually spent on sports and recreation than on medical care; and

Whereas, The outstanding performance of the Ad Hoc Commission on Sports Medicine this year has proven the potential for such a group within ISMA; therefore be it

Resolved, That a Commission on Sports Medicine be established within ISMA.

Fiscal Note: $500.00 per meeting.

RESOLUTION 83-19
Introduced by: John A. Knote, M.D., President
Subject: New ISMA Hospital Staff Section
Referred to: Reference Committee No. 6

Whereas, A hospital staff section, with voting delegate, has been created by the AMA; and

Whereas, Current government regulations may create and/or widen the communications gap and create deterioration of relationships between hospital medical staffs and hospital administration; and

Whereas, Indiana input into the AMA hospital staff section deliberations may well have been limited by the absence of a formal hospital staff section in our organization; therefore be it

Resolved, That a hospital staff section be established within ISMA in the same pattern as specialty sections.

Fiscal Note: $3,500.00

RESOLUTION 83-20
Introduced by: John A. Knote, M.D., President
Subject: Immediate Past President/AMA Delegation
Referred to: Reference Committee No. 6

Whereas, ISMA Bylaws now prohibit a member from holding two major offices; but

Whereas, The ISMA president-elect and president gain valuable exposure and experience at the national level during their participation in the Indiana Delegation at the annual and interim meetings; and

Whereas, The influence and impact of the Indiana Delegation on AMA deliberations, and the extension of ISMA philosophies across the country, might logically be enhanced by utilizing the reputation and contacts established during the president-elect and president years; therefore be it

Resolved, That an ISMA immediate past president may serve as an AMA delegate or alternate delegate if duly elected to that position by this House of Delegates.

RESOLUTION 83-21
Introduced by: John A. Knote, M.D., President
Subject: ISMA Application for Designation as Indiana PRO
Referred to: Reference Committee No. 3

Whereas, Current federal regulations mandate professional review organizations in each state in order to qualify hospitals for reimbursement for certain groups of patients; and

Whereas, Any group with demonstrated interest in performing professional review may apply to be the designated agency for an area or for the entire state; and

Whereas, The ISMA can unquestionably perform the professional review function better and more equitably than an individual county society, pre-existing PSRO or planning agency, or any insurance company; and

Whereas, The Federal Health Care Financing Administration (HCFA) has promulgated rules which provide for the creation of a Professional Review Organization (PRO) in each state; and

Whereas, The Indiana State Medical Association is the most representative of all physician organizations within the state; and

Whereas, Indiana physicians desire to have utilization review remain in the hands of physicians; and

Whereas, Failure of a physician organization to be designated as a PRO will likely result in a third-party carrier being designated; therefore be it

Resolved, That ISMA apply for designation as the sole, statewide PRO for Indiana, and that the Board of Trustees is hereby authorized to take all necessary steps to have ISMA designated as the PRO for the entire state of Indiana.

Fiscal Note: $1,000.00 for consultant fees to develop and submit proposal to HHS

RESOLUTION 83-22
Introduced by: Lee Smith, M.D.
Subject: World Water Wager
Referred to: Reference Committee No. 6

Whereas, It has been demonstrated that organized medicine has been able to stamp out smallpox from the planet Earth by a worldwide effort as a cost of $300 million, support for a World Water resolution is thinkable. Based on an estimate reported by Bernard Lown, M.D. that the lack of clean water accounts for 80% of all the world's illnesses, an organized effort to provide clean water to the people of the world deserves a feasibility study. A cost estimate to calculate a positive alternative to present expenditures for Economic Development at home and abroad should be pursued as an act of preventive medicine; and

Whereas, Knowing that organized medicine has been accused of self serving, and to project an image that could profoundly affect positively worldwide political

issues, suggesting a fresh, creative approach to the economies of the practice of a rapidly technologically enhanced level of medicine; therefore be it

Resolved, That the Indiana State Medical Association endorse this resolution to:

1. Study the feasibility of same
2. Seek projected cost estimate
3. Encourage legislative support and appropriations
4. Enlist World Health and other appropriate organizations to study the same with recommendations and conclusions for general dissemination; and be it further

Resolved, That a resolution be submitted by ISMA to the AMA and to the World Health Organization to endorse same.

Fiscal Note: $1,000.00

RESOLUTION 83-23
Introduced by: Gordon Hughes, M.S., Medical Student
Subject: Summer Jobs for Medical Students
Referred to: Reference Committee No. 5

Whereas, There is an ever increasing awareness of the need to introduce our younger physicians to the benefits and goals of organized medicine and thereby increase future membership as well as recruiting the future leaders of this organization; and

Whereas, It has become increasingly difficult if not impossible for many medical students to obtain summer employment between their first and second year of medical school; and

Whereas, Many physicians within our organization could temporarily employ a student from their town of residence during the vacation periods of other employees and thereby introduce a future physician to the non-academic side of medicine; therefore be it

Resolved, That the ISMA use existing facilities to organize a volunteer program to match willing physicians with medical students from their respective communities for summer employment during the break between the first and second year of medical school.

RESOLUTION 83-24
Introduced by: Marion County Medical Society and
Vanderburgh County Medical Society
Subject: Mandate for Addition to Regulations and Regulatory Process to the Charge of the Commission on Legislation
Referred to: Reference Committee No. 2

Whereas, "...to protect its members against imposition; and to enlighten and direct public opinion in regard to the great problems of medical care and public

health so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and prolonging and adding comfort to life" are among the stated purposes of the Association set forth in Article II of its Constitution; and

Whereas, Section 7.08 of the Association's Bylaws directs that "Each committee and commission shall have the duty and responsibility of keeping constantly and currently informed on the matters within the area of its special interest and activity of studying the conditions within that area with the purpose of finding possibilities for improvement; of finding the best solutions it can to the specific problems referred to it; of contributing in its area to the achievements of the Association as a whole in the protection and improvement of the health of the whole human family and finally of making all its efforts useful by passing on to the Association in the most effective manner possible the results of its studies and activities in its own area of special interest"; and

Whereas, these constitutional purposes and the intent of the Bylaws' directive to committees and commissions cannot be appropriately served by an organization which remains mute to the impact of regulations and the process by which regulations are promulgated, therefore be it

Resolved, That Section 7.010203 of the Indiana State Medical Association Bylaws be amended by the addition of the underlined phrases to read as follows:

7.010203 COMMISSION ON LEGISLATION

This Commission encompasses the fields of:

State Legislation
Federal Legislation
State Regulations
Federal Regulations

and be it further

Resolved, That Section 7.0808 of the Indiana State Medical Association Bylaws be amended by addition of the underlined words and phrases to read as follows:

7.0808 The Commission on Legislation: The Commission on Legislation shall study all legislation, regulations and regulatory proposals, both state and national, and all local legislative and regulatory trends and movements, as to their effect upon the practice of medicine and the protection of the public health; shall keep the profession informed at all times concerning the matters within its area of responsibility; shall conduct investigations of legislative and regulatory proposals; and shall maintain liaison with members of the State Legislature, United States Congress, state regulatory agencies whose scope and charge may affect the practice of medicine and the public health and welfare and with the legislative and regulatory activities of the American Medical Association. It shall strive to implement and make effective the legislative and regulatory proposals adopted by the Association but shall not abrogate its responsibility within the scope of this charge for want of a specific mandate from the House.

RESOLUTION 83-25
Introduced by: Fort Wayne Medical Society
Subject: Disability Insurance Form
Referred to: Reference Committee No. 4

Whereas, Most disability form inquiries regarding totality and permanency of disability are answerable only by responding "Yes or No", and

Whereas, Appropriately answering this question requires the physician to have full knowledge of the patient's vocational and educational background as well as union contracts, insurance contracts, and alternative job classifications with his employer, and

Whereas, In many cases much of this information is unavailable to the examining physician, therefore be it

Resolved, That the ISMA by action at its official session seek to modify the question and provide more work related information.

RESOLUTION 83-26
Introduced by: Larry M. Davis, M.D., Chairman,
Commission on Physician Impairment
Subject: Statewide Meeting on Physician Impairment
Referred to: Reference Committee No. 5

Whereas, The Indiana State Medical Association recognizes that a few Indiana physicians are impaired in their ability to practice competent medicine by drug abuse, psychiatric disorders or other difficulties; and

Whereas, We believe that fellow physicians are best equipped to identify, confront, rehabilitate and monitor these impaired physicians; and

Whereas, Special knowledge and skills are required to effectively perform these services for our fellow impaired physicians; therefore be it

Resolved, That a special statewide meeting be held in the spring of 1984 to discuss and teach knowledge about physician impairment and the process of effectively dealing with and helping these impaired physicians; and be it further

Resolved, To provide budgetary support for such a meeting to cover its expenses and to advertise its intent to physicians throughout the state who volunteer to participate in such a training program.

Fiscal Note: $5,000.00

RESOLUTION 83-27
Introduced by: Delaware-Blackford County Medical Society
Subject: Diagnosis Related Groups (DRGs)
Referred to: Reference Committee No. 6

Whereas, The Medicare hospital reimbursement plan adopted under the Social Security Rescue Plan recently passed by the Congress (DRG system) was passed in great haste with minimal discussion and little consultation with physicians; and

Whereas, Its implementation will focus on the cost of medical care to the exclusion of any interest in quality of medical care; and

Whereas, It appears that administration of the system will require a huge new bureaucracy at a time when government should be decreasing in size; and

Whereas, The system tends to reduce individual physician judgment from the practice of medicine, particularly because of the structure implicit with this new reimbursement system; and

Whereas, The only defense against this system seems to be a comprehensive educational campaign conducted by the medical profession to inform the public of the evils of the proposed system; therefore be it

Resolved, That the Delaware-Blackford County Medical Society calls upon the House of Delegates to:

1. Authorize such an educational campaign for immediate implementation
2. Fund such a public relations campaign through an appropriate assessment
3. Seek alliances with like-minded organizations in this endeavor
4. Initiate action to bring the same matter before the AMA House of Delegates, and
5. Research other avenues of opposition to the increase in federal intervention in medical care; and be it further

Resolved, That ISMA solicit the cooperation and assistance of other state medical associations in this nationwide endeavor.

Fiscal Note: $200.00 assessment per member.

RESOLUTION 83-28
Introduced by: ISMA Board of Trustees
Subject: Blue Shield Voluntary Incentive Program
Referred to: Reference Committee No. 4

(Discussions concerning Resolution 83-28 will be held in Reference Committee No. 4, Tennessee Room, from 11 a.m. to 12 noon, Saturday, Oct. 15.)

Whereas, Resolution 82-22 required "that ISMA pursue all avenues, including litigation if necessary, in opposition to health insurance programs requiring participating agreements"; and

Whereas, ISMA officers, Board of Trustees and Executive Committee have extensively pursued, both formally and informally, a variety of possible alternatives to the Blue Shield VIP Program; and

Whereas, As a result of the negotiation efforts, the Blue Shield Board of Directors has proposed an alternative method for reimbursing non-participating physicians; and

Whereas, The ISMA Board of Trustees voted, on August 28, 1983, against sponsoring a suit against VIP at this time; therefore be it

Resolved, That the Blue Shield proposal (as presented in its entirety below) be presented to the 1983 House of Delegates for its action.

July 17, 1983

TO: The Board of Trustees of the Indiana State Medical Association

RE: Blue Shield Voluntary Incentive Program (VIP)

At its meeting of July 17, 1983, the Board of Directors of Blue Shield of Indiana accepted a recommendation from its Executive Committee to consider restructuring our payment procedure for certain physicians servicing Blue Shield members. As you are aware, currently physicians participating in the Voluntary Incentive Program are paid directly, based upon the physician's contractual agreement to accept that payment in full. For those physicians choosing not to participate in the Program, payment is directed and payable to the member and the physician must look to his patient for payment.

The action of the Board today, proposes another option in our payment mechanism. If a non-participating physician elects by written designation on the Blue Shield claim form, we will agree to include the physician as a co-payee with the member on the claim check. The check will be sent to the member and negotiation of the check will indicate both parties' acceptance of the amount as payment in full. I am sure you will agree it would be unfair and unrealistic for this to be otherwise.

If this additional option is implemented, the Board has instructed me to carefully monitor its effect on VIP participation. Any decrease in participation could, at the Board's option, result in a reassessment of our position.

The Board has further directed me to request your consideration of this proposal at your Trustee's meeting scheduled on August 28, 1983. Absence of a written

response from ISMA prior to September 4, 1983 will result in our rescinding the action taken by the Blue Shield Board of Directors on July 17, 1983.

Sincerely,

(signed)
Richard C. Kilborn, President
Blue Shield of Indiana

CME QUIZ
Amniocentesis . . .

CONTINUED FROM PAGES 669-675

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Div. of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Indications for prenatal genetic amniocentesis include the following except:
   a) Maternal age of 35 years.
   b) Prior child with Down syndrome.
   c) Prior child with spina bifida.
   d) Prior child with cleft palate.

2. Cultured amniotic fluid cells are needed for the diagnosis of the following except:
   a) neural tube defect
   b) Down syndrome
   c) Tay-Sachs disease
   d) Thalassemia major

3. The U.S. collaborative study on prenatal diagnosis was consistent with the findings of the Canadian collaborative study. According to the outcome of these two reports the overall accuracy of prenatal diagnosis is:
   a) 69.4%
   b) 79.8%
   c. 84.9%
   d. 99.4%

4. The risks associated with amniocentesis are:
   a) less than 1%
   b) 10%
   c) 15%
   d) 25%

5. A couple who has had a prior child with an autosomal recessive disorder (e.g. Tay-Sachs disease) has a recurrence risk of:
   a) 50%
   b) 25%
   c) 3-5%
   d) less than 1%

6. A couple who has had a prior child with spina bifida has a recurrence risk of:
   a) 3-5%
   b) 10%
   c) 25%
   d) 50%

7. Amniocentesis to detect fetal chromosomal abnormalities should be done at:
   a) 8 weeks gestation
   b) 12 weeks gestation
   c) 16 weeks gestation
   d) 20 weeks gestation

8. The primary test used for the diagnosis of neural tube defect is:
   a) Hexoseaminidase A enzyme
   b) Karyotype
   c) alpha fetoprotein
   d) amniotic fluid cell culture

9. Any affected fetus can be ascertained prenatally in the following X-linked recessive abnormalities except:
   a) Lesch-Nyhan disease
   b) Hunter's disease
   c) Duchenne muscular dystrophy
   d) Hemophilia A

10. The only abnormality diagnosable by evaluation of uncultured amniotic fluid cells is:
    a) Fabry disease
    b) Hunter syndrome
    c) Sickle cell anemia
    d) Tay-Sachs disease

SEPTEMBER CME QUIZ Answers

Following are the answers to the CME quiz that appeared in the September 1983 issue of THE JOURNAL: "Some Newer Antibiotics," by Richard B. Kohler, M.D., et al:

1. d	6. b
2. c	7. d
3. c	8. a
4. d	9. c
5. d	10. d

Answer sheet for Quiz: (Amniocentesis . . .)

1. a b ç d	**6. a b c d**
2. a b c d	**7. a b c d**
3. a b c d	**8. a b c d**
4. a b c d	**9. a b c d**
5. a b c d	**10. a b c d**

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for this month's quiz, send your completed, signed application before Nov. 10, 1983 to the address appearing at the top of this page.

BOOK REVIEWS

Handbook of Geriatric Nutrition

By Jeng Hsu and Robert L. Davis. Copyright 1982, Noyes Publications, Park Ridge, N.J. 372 pages, hardcover, $39.

Physicians, by and large, have only minor interest in nutrition, leaving the details of diet planning to dietitians and nurses. The latter are probably better equipped to teach the specifics of meal planning than the doctor, but it clearly is his responsibility to find out what the patient's eating habits are and to explain in some detail why changes, if they are in order, should be made.

Any perceptive physician (and perceptive patient) must be aware that nearly always what alterations need to be made in a patient's life style—rest, exercise, use of alcohol and tobacco, food ingestion, etc. are often far more important than any drug he can prescribe. This book is designed to help him in his task of imparting sound advice to his patients on nutrition. It is made up of a series of discussions of the principles of nutrition and the effect of aberrations in rational food and drink ingested.

Use of the term "geriatric" in the title is unfortunate in some respects. The effect of aging on food intake and metabolism and the special problems of elderly people that come about from retirement, decrease in exercise, changes in availability of foods, decrease in social contacts, etc. are stressed. But the spectrum of nutritional needs from birth on through childhood, adolescence, maturity and finally senscence must obviously be considered. This the authors do quite adequately.

Practicing physicians will find the chapter on metabolism of cholesterol and its effect on aging of particular interest. The relationships between low-density lipo-proteins (LDL) and high density (HDL) are explained in a satisfactory manner. HDL apparently blocks deposition in cells of LDL and thus facilitates cholesteral excretion. Evidence is presented that an observed increase in the LDL-HDL ratio that accompanies aging can be reversed to some extent by regular exercise and cessation of cigarette smoking.

The chapters on the role of vitamins in maintaining health are not lengthy, and will be useful for review, as will the final chapter on "Food Facts, Fads, Fallacies and Folklore" of the elderly. The preoccupation of many adults with the all-inclusive virtues of vitamin E and lecithin is noted and damned with faint praise.

This volume is in no sense a diet handbook. It is a scholarly presentation of the role of nutrition in maintaining health, with extensive bibliographies following each chapter. As a quick and reliable reference book for busy practitioners it should serve a very useful purpose.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Medical Care of the Surgical Patient: A Problem-Oriented Approach to Management

Edited by D. R. Goldman, M.D., F. R. Brown, M.D., W. K. Levy, M.D., G. B. Slap, M.D., and E. J. Sussman, M.D. Copyright 1982, Lippincott, Philadelphia. 622 pages, hardcover, $41.

An enthusiastic group of young professors has enlisted 49 colleagues, more from the University of Pennsylvania Medical School than elsewhere, to deal with the preoperative, perioperative and postoperative care of patients undergoing surgery. In the 38 chapters most every problem beyond the operation itself is dealt with. Sample chapter headings include "The Preoperative Screening Examination; Antibody Prophylaxis of Infection; Endocarditis; Evaluation and Management of the Patient with Coronary Artery Disease; The Surgical Patient with Diabetes; The Surgical Patient with Chronic Liver Failure" and the like. All chapters are pertinent and relatively short.

The initial chapter entitled "Physiologic Response to Surgery and Anesthesia" written by Alden Harken, surgeon, and Elliott Sussman, internist, of the University of Pennsylvania faculty furnishes some underlying concepts useful as a background for the more specific problems and recommendations dealt with in subsequent discussions.

Physicians should be familiar with systemic effects of anesthesia drugs. Halothone in concentration needed for anesthesia reduces cardiac contractibility and cardiac index. It does not affect venous return but thiopental does, and this results in lowering of systemic arterial pressure and tachycardia.

In the anesthetized subject significant volume loss produces intense vasoconstriction of mesenteric, muscular and renal vascular beds. The arterial baroreceptors also may be affected, and this impairs defense of arterial pressure. Shifts in tissue perfusion with more blood going to the brain, heart and liver result. Such shifts, if prolonged, lead to irreversible shock. Blood loss is the most common cause of volume reduction. If hemorrhage is chiefly venous and fairly extensive, salt and water are absorbed into the intravascular space and may expand it up to 2 ml. per minute. When this process reaches its limit, the patient is in danger of expiring unless the blood volume is restored.

Respiratory function is nearly always compromised in major surgery. Anesthesia decreases pulmonary compliance. Mucosal drying depresses ciliary motility. Tracheal intubation often causes glottal edema and reflex sympathetic stimulation resulting in tachycardia. There is always some danger of aspiration pneumonia. In the profoundly anesthetized patient there is always some degree of small airway and alveolar closure and dependent lung edema. Halothane and other anesthetic agents reduce oxyhemoglobin affinity. Other drugs such as propranolol, aluminum hydroxide, aldosterone, corticoids and prostaglandin E may also interfere with oxygen unloading.

The most significant endocrine effect of surgery is stimulation of the pituitary to put out more ACTH. Corticoid levels increase in concert with catecholamines; they stimulate gluconeogenesis and secretion of low molecular weight nitrogen compounds important for collagen synthesis. In clean elective surgery corticoid levels seldom remain elevated beyond 24 hours. With complex multiorgan injury they may remain high for a week.

When the compensating processes operating to keep renal perfusion nor-

mal fail, renin is secreted in excess, then angiotension II. Increased vasoconstriction stimulates the renal cortex to produce aldosterone. Sodium is resorbed, potassium is lost in excess. Interstitid volume is thus supported. The stress of anesthesia and surgical hemorrhage activates the pituitary to put out more ADH to decrease water clearance.

The problems of diabetic patients are always increased in major surgery. Stress stimulates insulin secretion, thus favoring glucose utilization by cells, release of aminoacids from muscle and hydrolysis of fat to fatty acids. Glucagon, corticoids and catecholamine release glucose from the liver and thus offset the effect of the initial transient hyperinsulinemia. The net effect of these processes is glucose intolerance.

The overall metabolic insults inherent in major surgery are blood loss, starvation, tissue injury and often prolonged anxiety. Starvation ketosis augments the acidosis of imperfect glucose utilization. Administered glucose, even if accompanied by increased insulin dosage, has only a minor protein sparing effect. Excess nitrogen substrate, unless given in extremely large quantities, seems to be ignored. In severe surgery glycogen stores are severely depleted, body fat oxidation increases, water and salt conservation greatly increases. When these processes go on to an alarming degree in patients who cannot ingest food, total parenteral nutrition may become necessary.

Acid-base regulation is often a major peri- and post-operative problem. Increased aldosterone release causes decreased sodium elimination and movement of K and H into cells. This may cause paradoxic acidosis. Nasogastric aspiration leads to loss of H ions. Transfusion of citrated blood and spontaneous or induced hyperventilation add to the development of alkalosis. When patients are weaned from ventilators, respiratory compensation for alkalosis ensues and $PaCo_2$ may rise above the 40 torr mark until bicarbants returns to normal.

Particularly in prolonged surgery in elderly patients, decreases in cerebral perfusion that result from anesthesia pose additional problems. Added to these is the potential for thrombosis in arteriosclerotic blood vessels.

The above greatly condensed information imparted in the book's first chapter hopefully will stimulate the reader to try to assimilate the physiologic background making more meaningful the discussions of more specific problems that follow.

My guess is that this book will come off the library shelf often. Each of the 37 chapters following the one outlined above focuses on a specific problem, and specific management. Thus time is not wasted by the physician who wants quick help. But again, I urge close perusal of the first chapter when time permits.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Jenner's Smallpox Vaccine

By Derrick Baxby. Copyright 1982, Heinemann, Linden, England. 214 pages, hardcover, $25.

It is good for all of us occasionally to have a backward look into our medical heritage and learn more of the circumstances in which fundamental advances were achieved. Derrick Baxby, senior lecturer in Medical Microbiology, University of Liverpool, has supplied us with added background on Edward Jenner and his struggles to achieve solid protection against smallpox.

Jenner was born May 17, 1749. At age 13 he was apprenticed to Dr. Daniel Ludlow, a surgeon. After six years of this experience he was sent to St. George's Hospital in London. Here he met John Hunter, surgeon and anatomist, who influenced him to take up medical investigation in a serious way. This he did, after spending three years in general practice. It is worth noting that he always had an intense interest in natural history. His election to fellowship in the Royal Society in 1789 came about not from his medical research but from a study he published on the manner in which cuckoos manage to take over the nests of other birds, and hatch their own eggs in them. After invading the nests of other birds, the adult cuckoo turns the hatchlings of the rightful occupants on their backs, then pushes them out of their natural homes. During these years of preparation he pursued studies on whales and hedgehogs and developed a new method for making tartar emetic.

His first attempt at smallpox vaccination was carried out in 1796, after studying the disease in a desultory way over a 25-year period. Prior to Jenner's work it was believed that a degree of protection could be conferred on healthy persons by inoculating them with fluid from a pustule on the skin of persons who were in the acute stage of the disease. Subjects who were to be immunized in this way were "prepared" for the inoculation by a week or so of extra rest and a diet specially chosen to "create resistance against infection." There is little reason to doubt that persons treated in this way had attacks of true smallpox although most of them had fairly mild attacks. There were a few deaths. The attacks so produced were termed "varioloid."

Jenner, despite his long apprenticeship, and three years in practice (1772 to 1775), did not receive his M.D. degree until 1792—having reached the age of 43. While serving his apprenticeship as a teenager, it is probable that he was told by a country girl that she considered herself secure from smallpox because she already had had cowpox. Serious study of the disease did not start then. He was more interested in calcified coronary arteries and their relation to angina pectoris; ophthalmia, tuberculosis, and various kinds of manure as they might relate to human disease.

His interest in smallpox gained momentum after he obtained his medical degree. Several years before he attempted deliberate vaccination with serum from cowpox lesions, he reported on 13 persons who had had cowpox. Later when inoculated with fluid from human smallpox lesions they did not develop varioloid (mild smallpox) lesions.

His first deliberate inoculation of cowpox lesion serum in order to protect against smallpox was on May 14, 1796. The patient was a five-year-old boy. This and subsequent cowpox vaccinations were reported in a publication labeled "Inquiry into the Causes and Effects of the Variolae, Vaccinae." The report told of 25 persons vaccinated with cowpox lesion fluid later inoculated with live smallpox virus. All but one resisted smallpox. The latter had a mild reaction to cowpox vaccine but no axillary adenopathy. This patient developed a mild smallpox attack. After some experience with the vaccine, Jenner con-

cluded, probably correctly, that occasional strains of vaccine were less potent than others in stimulating immunity.

This was the first and probably the only demonstration that protection against one contagious disease was conferred by inoculation of material from another closely related but distinct disease. Jenner also demonstrated that vaccination using fluid from the single lesion produced in *humans* by cowpox vaccine produced a typical cowpox lesion and immunity to smallpox just as the vaccine made from cows did.

Probably professional jealousy among medical investigators in which many researchers are engaged in projects essentially similar is now as frequent as it was nearly two centuries ago. In Jenner's time the hostility was more open. His most outspoken critic was William Woodville, who was in charge of a hospital devoted exclusively to variolation. At first he took no stock in Jenner's observations. Later on he, with two other physicians, visited a London dairy in which cowpox had broken out. They obtained material from the lesions of milk maids who contracted the disease. With it they produced typical cowpox lesions resembling those described by Jenner. However, in 60% of their trials multiple lesions appeared and the subjects became quite ill. Most of Jenner's supporters contended that Woodville's vaccine had been contaminated with fluid from true smallpox lesions in humans or that those developing so-called Varioloid had contracted the disease from other patients in the smallpox hospital and were vaccinated during the incubation period of the true disease.

Despite the criticism of Woodville and others described in this book, Jenner's claims have been thoroughly vindicated throughout most of two centuries. The discovery of the vaccine which has virtually wiped out smallpox world-wide remains one of the great fundamental discoveries of Western medicine.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Basic Books, Inc. has published a new book, *The Hospice Alternative: A New Context for Death and Dying*. The author is Anne Munley, I.H.M., a sister in, and director of Apostolic Planning for the congregation of the Immaculate Heart of Mary at Scranton, Pa. She advocates hospice care as the most humane treatment for the dying. 349 pages, $17.50.

Living with Herpes

By Deborah P. Langston, M.D. Copyright 1983, Doubleday & Company, Inc., New York. 198 pages, softcover, $7.95.

A patient of mine who recently was treated for a gonococcal urethral discharge said that he only hoped it wasn't herpes! After an extramarital sexual affair another patient developed prostatitis and said he was terribly afraid he had contacted herpes. Such is the attitude of the public to genital herpes. This book is written for that public by an ophthalmologist from Harvard who also heads a Virology Research Laboratory. The book's subheading is, "The Comprehensive and Authoritative Guide to the Causes, Symptoms, and Treatment of Herpes Virus Illnesses."

The entire spectrum of Herpes I and II, Zoster, Cytomegalovirus Disease and possible relationship of these virus diseases with cancer of the cervix and "Acquired Immune Deficiency Diseases" is covered in detail but in style and language the lay person can understand. The nature of the so-called "epidemic" with its emphasis on increased sexual encounters in our modern world is covered extensively but repetitiously.

The author uses the pronoun "you" again and again which causes, to my mind, a patronizing effect which detracts from the impact of the text. She also perpetuates the idea of the extreme seriousness of the disease and certain unproved allegations that it can be contracted from toilet seats and other fomites. To put this in perspective, let me quote Dr. Felman of the New York City Department of Health: "Gonorrhea, although it can be cured, is in effect a much more serious disease . . . (than) herpes."* Perhaps if "the media" were moderate in their presentations of the disease, we would all benefit from a balanced viewpoint.

I learned several things from this book and recommend it for doctors and the public alike.

*Felman, Yehudi, M.D.: Quoted in "Sexual Medicine Today," June 15, 1983, p. 6.

Rodney A. Mannion, M.D.
LaPorte
Urological Surgery

Writers Bank has published *Diary of a Heart Attack*. Written by an ophthalmologist, Jaswant Singh Pannu, M.D., it is actually an edited version of daily diary entries which were made each day from the doctor's occlusion, through bypass surgery and into convalescence and return to a busy practice. It is recommended for conditioning of patients and their families prior to and after coronary bypass.

The ISI Press announces publication of *A Treasury for Word Lovers* by Morton S. Freeman. It is directed to "those who aspire to learn the words and expressions of cultured people." Edwin Newman, in the foreword, says, "I can't think of anyone who wouldn't be helped by Morton Freeman's book." The price is $14.95 in paper and $19.95 in cloth.

Thieme-Stratton has released four new books: *Language Handicaps in Adults*, edited by W. H. Perkins, Ph.D.; *Pneumonias: Seminars in Infectious Disease, Vol. V*, edited by Louis Weinstein, M.D. and B. N. Fields, M.D.; *Tumor Prostheses for Bone and Joint Reconstruction: Design and Application*, edited by E. Y. Chao, Ph.D. and J. C. Ivins, M.D.; and *Segmental Pancreatic Transplantation: International Workshop*, edited by W. Land and R. Landgraf.

Doubleday has released *The Migraine Prevention Cookbook*. It is written by Josie A. Wentworth, a migraine sufferer and medical researcher, and Katharine Dalton, M.D., a leading expert on migraine. The dietary regime is based on avoidance of vasoactive amines, such as cheese, chocolate, citrus fruits and alcohol. The cookbook gives menu suggestions and over 200 recipes. It includes charts to aid in pinpointing the foods that trigger the headaches. 216 pages, $13.95.

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NEWS NOTES

Ektachem 700 Analyzer

Dr. Thomas W. Draper, an Indianapolis pathologist, attended a press conference in New York in July, during which Eastman Kodak Company unveiled its new Ektachem 700 Analyzer. Dr. Draper provided THE JOURNAL *with the following report:*

The Ektachem 700 Analyzer is an instrument that utilizes Kodak's dry clinical chemistry slides. It performs 19 potentiometric or colorimetric tests and six enzymatical clinical chemistry tests.

Kodak's market analysis shows that 8.2 million clinical laboratory blood tests are performed each day; that 6,000 hospital laboratories provide 90% of these tests; and that only 25 different clinical chemistry tests account for 85% of the total tests. Thus, Kodak felt there was a considerable market available for a "better mousetrap."

Kodak mentions numerous attributes of this new analyzer. A few of these I feel are indeed interesting. First, only a small amount of sample is needed. Only 10-11 uL of patient sample is required for each chemistry slide test—ideal for neonates and difficult blood draws. Second, a single test, any combination of tests, or one of 14 pre-programmed test panels may be performed on a sample. Thus, only the tests the physician requires are conducted for each individual patient. Lastly, the Ektachem 700 Analyzer is reported by Kodak to have a 90% efficiency (reportable test/tests performed).

Quality control samples are required only once per shift and calibration only once per week. This is compared to some instruments utilizing conventional wet chemistries where the efficiency may approach 50% (the non-reportable tests are quality control materials, calibrators and repeat samples). With the arrival of DRGs and if this 90% efficiency can be translated into dollars, this last point may be the most compelling argument by Kodak for this new analyzer.

Clinical trials of the Ektachem 700 Analyzer are currently in progress. During this time, hopefully a few of the bugs seen with the earlier Ektachem 400 and those bugs inherent in any new instrument will be worked out. The Ektachem 700 Analyzer is projected to be fully available in mid-1984. The target price is about $160,000.

Undoubtedly, those of us involved with the clinical laboratory will be hearing more about the Ektachem 700 Analyzer in the coming year. When the data from the clinical trials are available, the Ektachem 700 may be worth consideration for many situations.

Head and Spine Atlas

General Electric has issued an atlas of head and spine images acquired by magnetic resonance tomographic imaging. The 21 images are presented as reconstructed and in enhanced form annotated with callouts of anatomical features.

Write for publication 5599 to General Electric Medical Systems, P.O. Box 414, Milwaukee, Wisc. 53201.

New ACSM Director

The American College of Sports Medicine, which is building its new national headquarters in Indianapolis, has announced the appointment of John Miller as its incoming executive director.

Mr. Miller has been program director, professional education director and executive director of three separate chapters of the American Cancer Society over the past several years. He joins the college at a busy time, when membership is increasing rapidly and just prior to a move of offices from Madison, Wisc., to temporary offices in Indianapolis while the new college headquarters is being constructed.

Profit in Orphan Drugs

The orphan drug program is progressing. It has developed that small pharmaceutical companies are actually able to manufacture some non-patented drugs and market them in small quantities with profit.

For example, Mission Pharmaceuticals of San Antonio, with 80 employees, has adopted three orphans, each one of which is useful in the prevention of kidney stones. The drugs were developed by the National Institutes of Health and the Veterans Administration without cost to Mission, which will have seven years from the date of FDA approval to market the products before competition will be allowed.

The law also provides for a 50% reimbursement in orphan drug development costs in the form of tax relief.

Physician Recognition Awards



The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.



Ang, Robert T., Merrillville
Black-Schaffer, Alice E.R., Bloomington
Dew, Daniel C.Y., Elkhart
Ferree, Mary M., Indianapolis
Fortney, T. Guy, Indianapolis
Frost, Robert J., Michigan City
Isaacs, Barbara S., Clarksville
Jayner, John E., Indianapolis
Kho, James B., Terre Haute
Lee, Randall A., Martinsville
Maxson, Roy V., Whitestown
McDonald, Eugene W., Michigan City
Perez, John M., Lafayette
Richter, Lawrence J., Indianapolis
Sepehri, Bahram, New Albany
Silver, Richard A., Indianapolis
Smith, Anthony A., Kokomo
Valenzuela, Diego C., Vevay
Villamil-Marrero, Ramon J., Bluffton

Policy Committee

Dr. Charles Fisch, Indianapolis, is one of 11 physicians appointed to a nationwide Professional Policy Committee formed to review medical practices for quality, safety and cost.

The committee was appointed by U.S. Administrators, the nation's leading health care administrator and health care cost containment company. Committee members represent the principal clinical specialties, Blue Cross and Blue Shield, and the Veterans Administration.

Marvin J. Shapiro, M.D., the company's director of cost containment, is chairman of the committee. He is a former chairman of the board, Blue Shield Association.

The underlying assumption behind the project is that "at least 20% of medical services are of no possible value to the patient." A company spokesman said that many "unnecessary diagnostic and therapeutic procedures involve risk and discomfort to the patient as well as contributing very significantly to spiraling increases in health care costs."

No. 2 in the World

St. George's University School of Medicine in Grenada, West Indies, for the third consecutive year, has scored the second highest average in the world for U.S. citizens taking the ECFMG examination in medicine. The Sackler School of Medicine in Israel scored higher over the three-year period.

Fellowships Deadline

The deadline for applications for 1984-85 Adult Cardiology Fellowship Training Awards offered by the American College of Cardiology and The Merck Company Foundation is Jan. 1, 1984.

Each fellowship provides a $20,000 stipend and an additional $5,000 for purchase of supplies and equipment. Fellowships run from July 1984 through June 1985. Applicants must be in their first or second year of adult cardiology fellowship training.

For more info write the college at 9111 Old Georgetown Road, Bethesda, Md. 20814.

Pediatric Emergency Care

Seven medical societies are consulting and cooperating to categorize pediatric emergency care and to provide special training for emergency physicians in such care. The American College of Emergency Physicians hosted an Interspecialty Conference in June.

A paper on the proceedings of the conference will be available through ACEP in early November. Write the college at P.O. Box 619911, Dallas, Tex. 75261.

Here and There . . .

. . . **Dr. Alfred P. Lessure** of Evansville has been named medical director of Welborn Hospital's radiology department.

. . . **Dr. Deepak Bhojraj** of Hobart has been elected to fellowship in the American Academy of Family Physicians.

. . . **Dr. Alan J. Adler** of Kokomo has been elected president of the Kokomo-Howard County Chamber of Commerce board of directors.

. . . **Dr. Donald E. Clayton** of Lafayette recently served as director of a four-week program to help families learn how to deal with asthmatic children; the program was sponsored by the West Central Region American Lung Association and the Lafayette YMCA.

. . . **Dr. Felipe S. Chua** of Merrillville has been presented a service recognition award by the Northwest Indiana Chapter of Mended Hearts.

. . . **Dr. Franklin D. Wilson** of Indianapolis was guest speaker at an August sports medicine conference in Terre Haute.

. . . **Dr. Wilson L. Dalton** of Shelbyville and **Dr. Jack H. Hall** of Indianapolis have been reappointed by Governor Robert Orr to the Indiana Medical Education Board.

. . . **Dr. Shirley Khalouf** of Marion has been appointed by Governor Orr to the Commission for the Handicapped.

. . . **Dr. Norman C. Estes** of Indianapolis served as moderator of a panel discussion on "Meeting the Challenge of Cancer Among Minorities," held in August in Indianapolis. **Dr. William F. Nowlin** of Merrillville was among the panelists.

. . . **Dr. Robert W. Schimmelpfennig Jr.** of Jasper has been elected to fellowship in the American Academy of Pediatrics.

. . . **Dr. John E. Pless** of Bloomington has assumed duties as director of forensic pathology, Indiana University School of Medicine; he is the Monroe County coroner.

. . . **Dr. Thomas W. Draper** of Indianapolis has been named a diplomate of the American Board of Pathologists.

. . . **Dr. Robert E. Rogers**, an Indianapolis Ob/Gyn specialist, recently visited Brooke Army Medical Center in San Antonio, where he presented four lectures.

. . . **Dr. Roberto Cantillo** of Terre Haute has been named medical director of Hospice of the Wabash Valley.

. . . **Dr. Alexander A. Stemer** of Munster conducted a herpes seminar in August in Crown Point.

. . . **Dr. D. Logan Dunlap** of South Bend and **Dr. Tae G. Kiehm** of Mishawaka discussed diabetes during an August "Ask the Doctor" forum in South Bend.

. . . **Dr. Frank J. Amodio**, an Evansville allergist, has been presented the Arthur G. Griep Mentor Award by residents of St. Mary's Medical Center.

. . . **Dr. Swaroop Rai** of Huntingburg has been elected to fellowship in the American College of Cardiology.

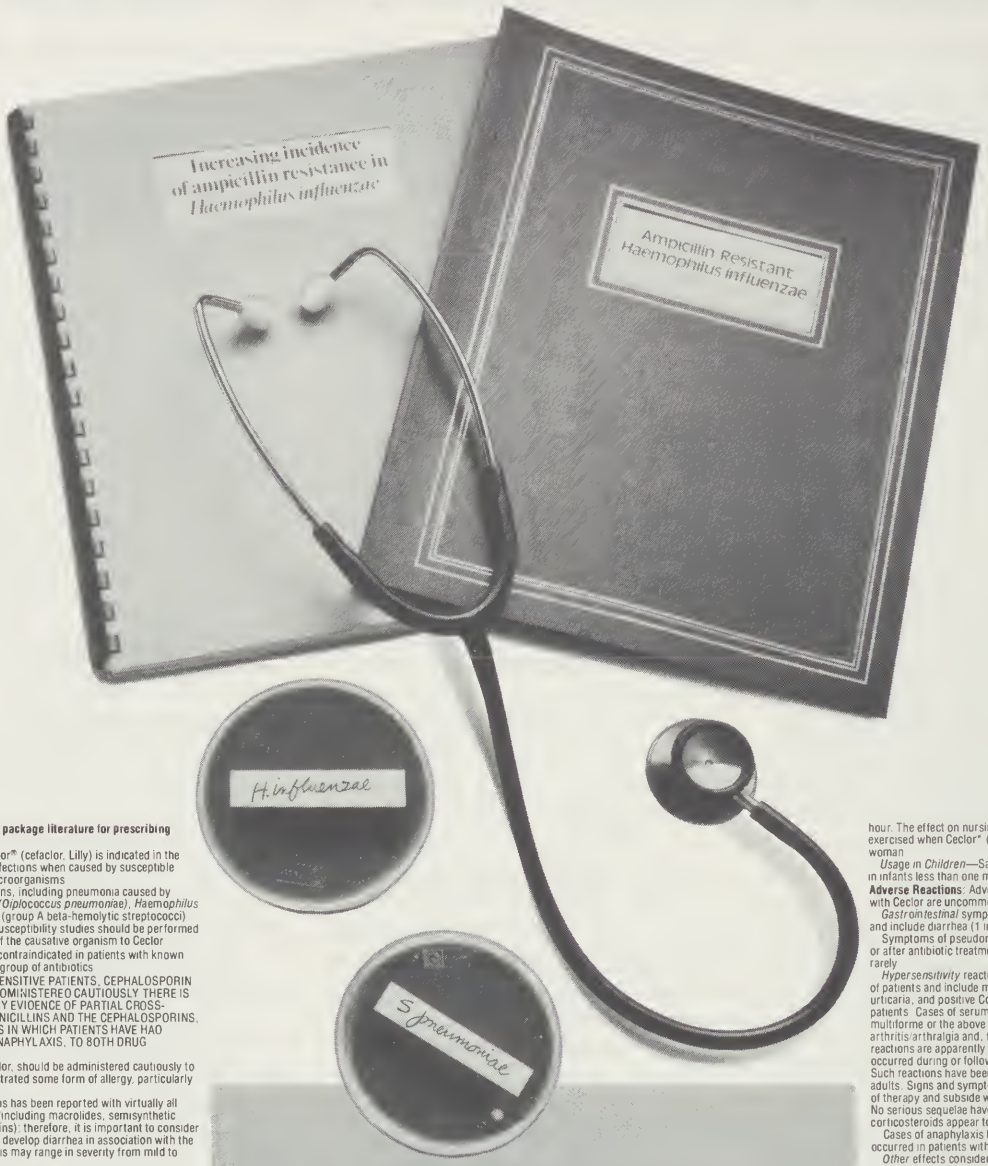
. . . **Dr. Frank P. Lloyd** of Indianapolis received the Distinguished Service Award of the National Medical Association at the August meeting in Chicago; the award is the NMA's highest honor.

. . . **Dr. John E. Joyner** of Indianapolis was elected secretary of the board of trustees of the National Medical Association during their August meeting. Dr. Joyner also serves as the NMA representative on the AMA Health Policy for the American People Committee.

. . . **Dr. Frederick B. Stehman** of Indianapolis has been elected to the board of directors of the Marion County unit, American Cancer Society.

. . . **Dr. Clarence E. Ehrlich** of Indianapolis was a guest professor on the "Great Medical Getaway" float trip on Idaho's Salmon River this summer; he conducted daily workshops on ovarian neoplasms.

An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions*—If an allergic reaction to Ceclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—*Pregnancy Category B*—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers—Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor* (cefaclor, Lilly) is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations of SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note. Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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OBITUARIES

Joseph T. Farrell, M.D.

Dr. Farrell, 72, a retired Indianapolis physician, died July 16 at his home.

He was a 1935 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Farrell retired from active practice in 1977.

J. R. Hamilton, M.D.

Dr. Hamilton, 84, a Mitchell physician, died July 15 at Dunn Memorial Hospital, Bedford.

He was a 1927 graduate of Johns Hopkins University School of Medicine. He was a World War I veteran.

Dr. Hamilton, a member of the ISMA Fifty Year Club, was on the medical staff at Dunn Hospital 45 years. He was a Sagamore of the Wabash and a Kentucky Colonel.

J. Robert Matthew, M.D.

Dr. Matthew, 76, a retired Knox physician who was serving as Starke County health officer, died June 30 at Presbyterian-St. Luke's Hospital, Chicago.

He was a 1933 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Matthew, a member of the American Psychiatric Association, served 10 years as clinical director at Beatty Memorial Hospital, Westville. He was a past president of the Starke County Medical Society.

Elmer L. Koch, M.D.

Dr. Koch, 66, a former Danville physician, died Aug. 16 at his Danville home.

He was a 1949 graduate of Indiana University School of Medicine. He had practiced in Danville until 1977, when he moved to Arizona.

Dr. Koch was a former director of the Indiana Boys School and a former deputy coroner in Hendricks County. He was president of the Seventh District Medical Society from 1955 to 1956. He was a member of the American Academy of Family Physicians.

William J. Comeau Jr., M.D.

Dr. Comeau, 67, a retired Marion radiologist, died July 9 at Marion General Hospital.

He was a 1940 graduate of Georgetown University School of Medicine and was an Army veteran of World War II.

Dr. Comeau, a diplomate of the American Board of Radiology, was a member of the American College of Radiology and the Radiological Society of North America.

Paul L. Long, M.D.

Dr. Long, 79, a retired Anderson physician, died June 21 at the VA hospital in Marion.

He was a 1935 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Long retired from active practice in 1976.

Eugene S. Rifner, M.D.



Dr. Rifner, 63, a Van Buren physician who served as president of the Indiana State Medical Association from 1966 to 1967, died Aug. 13 at his home.

He was a 1945 graduate of Indiana University School of Medicine and served as an Army medical officer from 1946 to 1948.

Dr. Rifner, active in the affairs of organized medicine, served in various capacities at the county, state and AMA levels. He was a past secretary and president of the Grant County Medical Society, a former ISMA trustee, and a former AMA alternate delegate. In addition, he served on several ISMA committees.

Born in Indianapolis, he began his medical practice in Van Buren in 1948. He served several years as Grant County health officer, a position from which he resigned earlier this year because of ill health. He was also a member of the executive board of Indiana Blue Cross.

Dr. Rifner's professional memberships included the American Academy of Family Physicians, the American Geriatrics Society and the Indiana Academy of Family Physicians.

T. A. Dykhuizen, M.D.

Dr. Dykhuizen, 78, a retired Frankfort physician, died June 26 at his home.

He was a 1929 graduate of Indiana University School of Medicine and was a World War II Army veteran.

Dr. Dykhuizen, who retired in 1970, was a member of the ISMA Fifty Year Club.

Harry E. Voyles, Jr., M.D.

Dr. Voyles, 51, a New Albany physician, died Aug. 4 at Floyd County Memorial Hospital.

He was a 1958 graduate of Indiana University School of Medicine.

Dr. Voyles was a member of the American Society of Internal Medicine.

Memorials: Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

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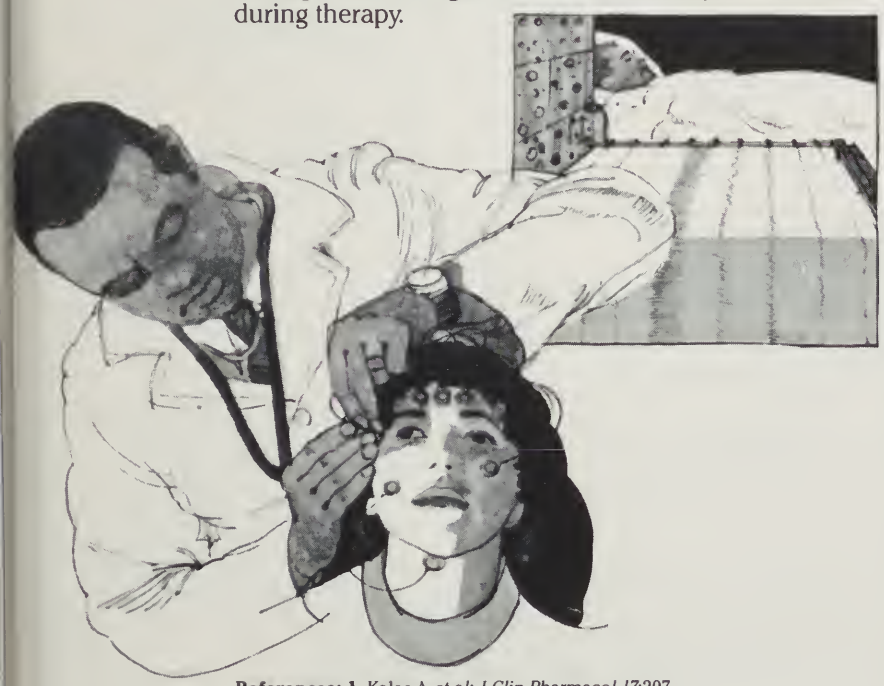
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Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

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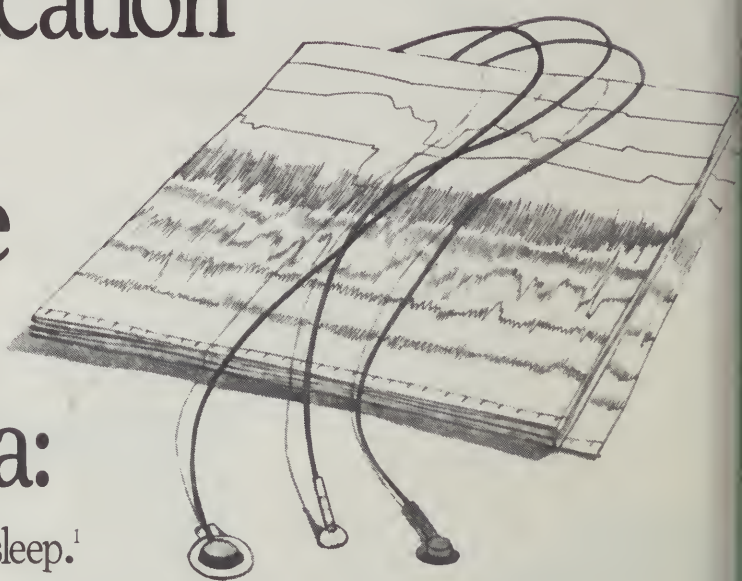
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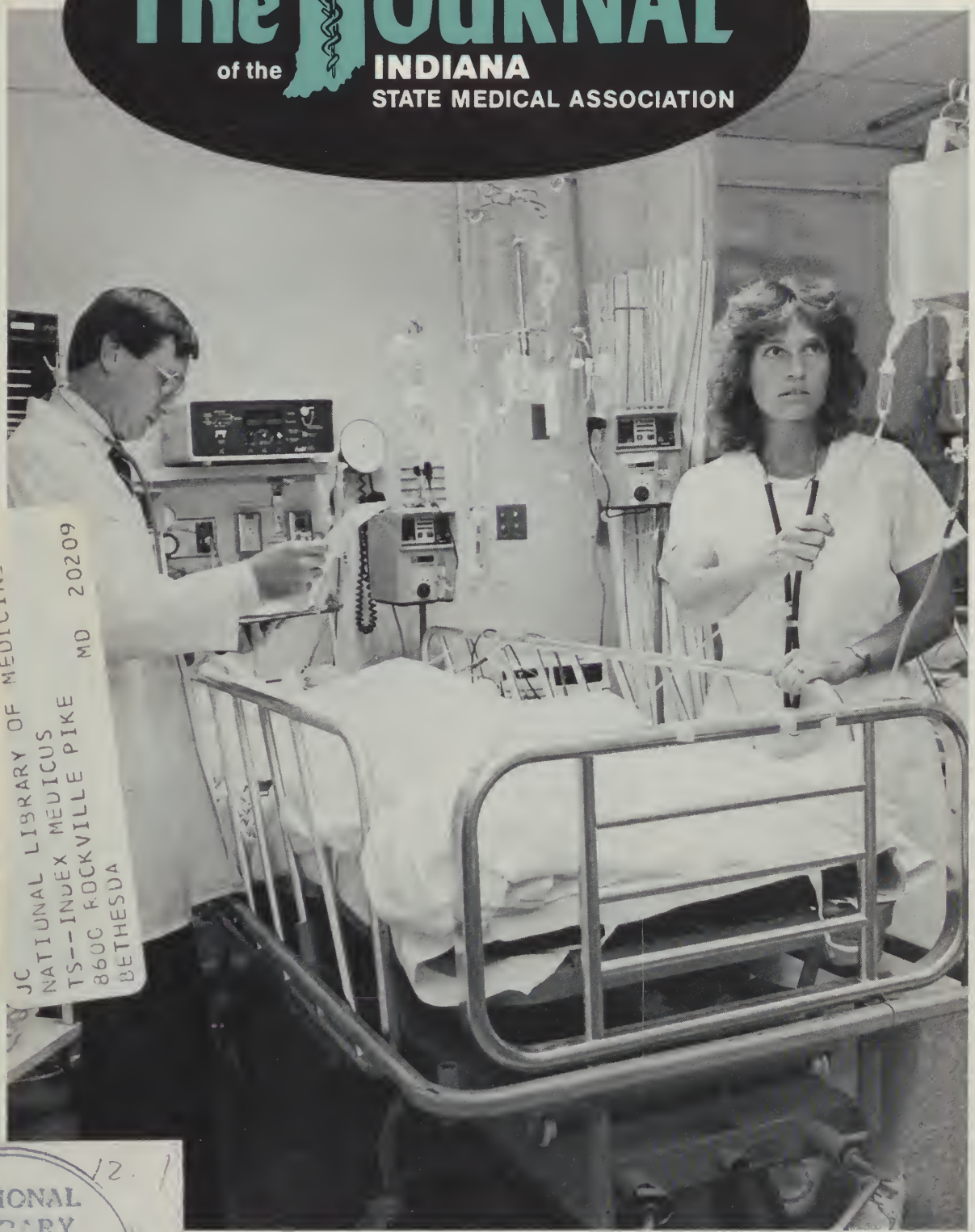
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NOVEMBER 1983
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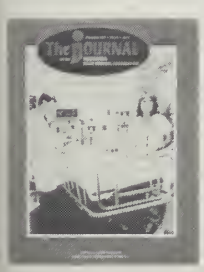
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ABOUT THE COVER

Dr. Robert L. Iverson, co-director of the Adult Intensive Care Unit, Methodist Hospital, Indianapolis, and Linda Joray, R.N., patient care preceptor, attend to an ICU patient being treated for septic shock and respiratory failure. Dr. Iverson introduces a summary statement on Critical Care Medicine in this issue, which serves as an introduction for future CCM articles being planned for THE JOURNAL.—**Photo by David C. Willoughby, director of Medical Media Productions, Methodist Hospital, Indianapolis**

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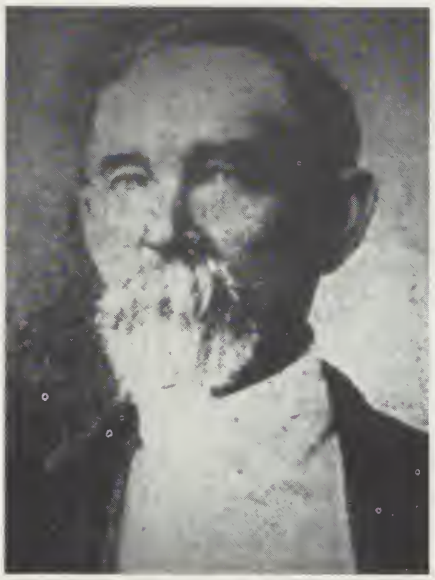
CHARLES A. BONSETT, M.D., Indianapolis

JEAN HENRI DUNANT (1828-1910), a Swiss banker, happened to be in Solferino, Italy on the day following the battle for that place during the Austro-Sardinion War (1859). Over 35,000 men had been killed or wounded. Dunant, horrified by the scene and by the suffering, immediately organized a group of volunteers to help alleviate the misery. Later, he wrote about this experience (*Un Souvenir de Solferino*) and urged the formation of permanent international volunteer societies to provide relief for the wounded in the event of war. The first Geneva Convention met in 1863 and in due time the International Red Cross was founded. For this achievement Dunant was awarded the first Nobel Peace Prize in 1901.

It was not until 1882 that the United States became a signatory to the Geneva Convention, largely through the efforts of Clara Barton (1821-1912), a Massachusetts-born school teacher who had gained a considerable amount of administrative experience as an organizer of the public school system in New Jersey. Miss Barton was 40 years old when she turned her attention to humanitarian endeavors. During the Civil War she performed relief work on the battlefields and, after the war, organized a search for missing servicemen. During the Franco-Prussian War (1870), she worked for the International Red Cross and, in 1871, distributed relief items to the people of Strassburg, Belfort, Montpelier and Paris.

She worked then to establish the American Red Cross (1881) and for the adoption of the Geneva Treaty (1882). Miss Barton was president of the American Red Cross from its founding until 1904, her concept of its function not being restricted to armed conflict but rather to catastrophy of any cause—fire, flood, famine, earthquake—any event where the organization could provide essential services.

The melting snows and heavy rains of February-March 1884 brought floods to the Ohio Valley which, in turn, brought Clara Barton to Evansville. (While there she stayed at the home of Major and Mrs. Byron Parsons; this house later became the first home of the Protestant Deaconess Hospital.) She chartered a paddlewheel steamboat, the *Josh V. Throop*, and distributed emergency supplies to the river towns between Evansville, Indiana and Cairo, Illinois. While in Evansville she engaged one of its local citizens, Miss Enola Lee, to become her private secretary.



Dr. Gardner

This brings us to Dr. Joseph Gardner. Just how Miss Lee and Dr. Gardner met, and when and where they married (he for the third time) is not clear. Dr. Gardner (1833-1919) of Bedford, Indiana was born and reared in Clark County. He received his M.D. degree from the Medical Department of the University of Louisville in 1861. Following this, he gained first-hand experience on battlefield casualties, both as a military surgeon and as the recipient of a minie ball in the left chest. Following the war he moved to Lawrence County. He married twice, outliving both wives, having all sons by one and all daughters by the other.

In addition to the practice of medicine, Dr. Gardner had an interest in astronomy, microscopy and photomicroscopy. (One source stated that his sister was married to the nephew of Louis Pasteur.) He invented and held the patent to one of the world's first chemical fire extinguishers. He discovered and developed the high quality kaolin deposits in Lawrence County, an activity which added to his wealth and helped to make him the largest landowner in the county.

It was through his relationship with Enola Lee that Dr. Gardner met Clara Barton and became one of her volunteers. He served with her at the Johnstown flood (1889), Cuba (1898), and at the Sea Island and Galveston floods (1900), among other places.

He was so impressed with the woman and her work that he gave her a 782-acre tract of land about five miles southwest of Bedford, part of it fronting on White River. It contained rich bottom land, quarries of oolitic limestone, orchards and fresh water springs. (The area became known as Red Cross Park or Red Cross Farm.)

It was planned that this would become a source of revenue for the Red Cross, would serve as a depot for emergency supplies, would be the site for hospitals for tuberculosis, for incurable diseases, and for the training of Red Cross nurses. None of these dreams materialized. Because of failure to pay taxes on the land, it was sold at a public sale in 1904. The buyer was Dr. Gardner.

FUTURE FILE

Heart Diseases

"Diagnosis and Management of Myocardial Infarction" will be the title of the 3rd Annual Heart Diseases Conference at the University of Wisconsin. It meets at the Clinical Science Center in Madison Dec. 9 and 10. AMA Category 1 credit and AAFP credit.

The correspondent is Sarah Z. Aslakson, 465B WARF Bldg., 610 Walnut St., Madison, Wisc. 53705—(608) 263-2856.

Ultrasound Imaging

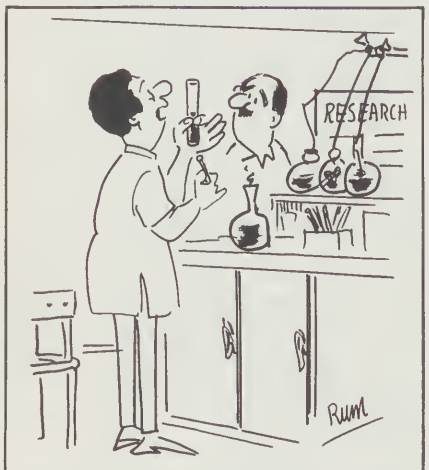
"The Use of Diagnostic Ultrasound Imaging in Pregnancy" is the subject of a Consensus Development Conference to be sponsored by the National Institutes of Health Feb. 6, 7, and 8 in the Masur Auditorium in the NIH Clinical Center. CME credit is granted.

To register, write or phone Peter Murphy, Prospect Associates, 2115 E. Jefferson St., Suite 401, Rockville, Md. 20852—(301) 468-6555.

Cancer Therapy

The American Cancer Society National Conference on Advances in Cancer Therapy will be held in New York City, Dec. 8-10. The program is eligible for 16.5 AMA Category 1 credit hours and for 15 AAFP prescribed hours.

Contact Nicholas G. Bottiglieri, M.D., American Cancer Society, 777 Third Ave., New York, N.Y. 10017.



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The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Management Seminars

Resort Seminars is offering a series of medical and professional business management seminars to be held in Keystone, Vail, and Snowmass Village, Colorado throughout the winter season, 1983-84.

Seminar content encompasses a comprehensive and up-to-date overview of current business elements. It is directed to ultimately improve the professional's effectiveness in everyday operations and to increase productivity and profitability. Sixteen seminars will be conducted weekly beginning in December and continuing into mid-April. Fourteen CME Category 1 credits are offered. The seminars are designed to conform with the time demands of the other activities in the area.

Write or phone Resort Seminars, P.O. Box 5212, Snowmass Village, Colo. 81615—(303) 923-5850.

Nutrition Research

"The Role of the Gastrointestinal Tract in Nutrient Delivery" is the topic of the third annual Bristol-Myers Symposium on Nutrition Research, to be held in the Shoreham Hotel, Washington, D.C., Dec. 1 and 2. Dr. Morris Green of I.U. School of Medicine will co-chair the two-day event.

Registration information is available from the Division of CME, Indiana University, 1120 South Drive, FH224, Indianapolis 46223.

ACS Conference

The American Cancer Society Fourth National Conference on Human Values and Cancer meets March 15 to 17 in New York City.

For details write Diane J. Fink, M.D., ACS, 777 Third Ave., New York, N.Y. 10017.

Indiana University CME

For the Primary Care Physician

Dec. 8—Advances in Radiology: Review of New Techniques in Diagnosis and Therapeutic Intervention—Richmond.

Feb. 16—Trauma Care: Basics for Primary Care Physicians—Richmond.

For the Specialist

Nov. 12—Anesthesia Update 1983.

Feb. 4—Pediatric Ophthalmology.

March 21, 22—Pediatric Pulmonary

For additional information contact Indiana University School of Medicine, Division of Continuing Medical Education, 1120 South Drive, Indianapolis 46223—(317) 264-8353.

Emergency Medicine

The 1984 annual meeting of the University Association for Emergency Medicine will be held at the Hyatt Regency in Louisville May 23 to 26. Abstracts for scientific articles to be presented at the meeting will be accepted until Feb. 15. Mail five copies to UA/EM, 900 West Ottawa, Lansing, Mich. 48915.

Kidney Disease

"Analgesic-Associated Kidney Disease" is to be the subject of a National Institutes of Health Consensus Development Conference Feb. 26 to 29 at the Masur Auditorium, 9000 Rockville Pike, Bethesda, Md.

To register for the conference or obtain further information, write or call Mrs. Michele Dillon, 2115 E. Jefferson St., Suite 401, Rockville, Md. 20852—(201) 468-6555.

China Conference

An International Breast Cancer Conference will meet in Tianjin, China, April 24 to 27, 1984. The faculty includes clinicians from the Peoples Republic of China, France, Italy, Switzerland and the United States.

For full particulars write to Mr. C.H. Tu, Managing Director, Inter-World Exchange Service Ltd (IWE), 401/2 & 404/5 Metropole Bldg., 57 Peking Road, Kowloon, Hong Kong. An optional post-conference tour is planned for 10 days in China.

Cytopathology Course

The Johns Hopkins Postgraduate Institute for Pathologists in Clinical Cytopathology will conduct its 25th course beginning in February. A loan set of slides with text will be sent to each participant for home study during February and March. This is followed by a two week In-Residence course in Baltimore March 25 to April 6. Application should be made before Jan. 31.

Write to John K. Frost, M.D., 604 Pathology Building, The Johns Hopkins Hospital, Baltimore 21205.

Kentucky CME Courses

The University of Kentucky announces the following CME courses:

Dec. 16-17—Peripheral Vascular Disease Symposium, Hyatt Regency, Lexington.

Feb. 19-24—15th Family Medicine Review (Session I), Hyatt Regency, Lexington.

March 9-11—Advanced Cardiac Life Support Courses, University of Kentucky Medical Center, Lexington.

For details, contact Frank R. Lemon, M.D., CME, College of Medicine Office Bldg., University of Kentucky, Lexington, Ky. 40536—(606) 233-5161.

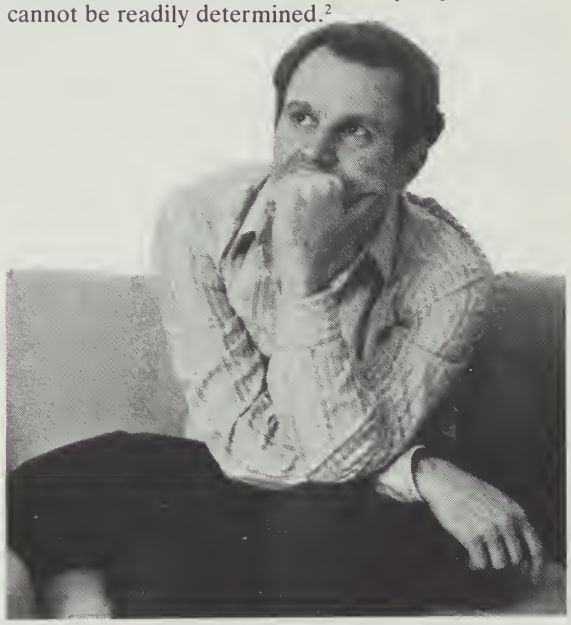
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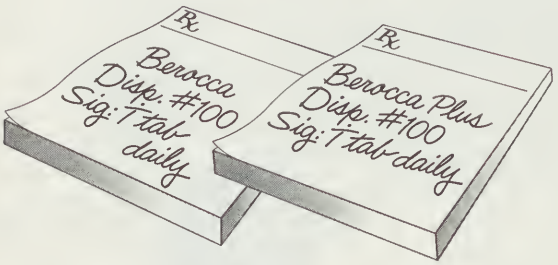
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DESCRIPTION: Each sustained release capsule contains 12 mg of Chlorpheniramine Maleate, USP and 75 mg of Phenylpropanolamine Hydrochloride, USP in a base to provide prolonged activity.

INDICATIONS: For the treatment of the symptoms of seasonal and perennial allergic rhinitis and vasomotor rhinitis, including nasal obstruction (congestion).

CONTRAINDICATIONS: Hypersensitivity to any of the components, concurrent MAO inhibitor therapy, severe hypertension, bronchial asthma, coronary artery disease, stenosing peptic ulcer, pyloroduodenal or bladder neck obstruction. Do not use in children under 12 years.

Do not use this drug in patients with narrow-angle glaucoma, obstructive or paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrage, severe ulcerative colitis, toxic megacolon complicating ulcerative colitis, myasthenia gravis. Do not use in nursing mothers.

Use in treating lower respiratory tract symptoms, including asthma, is contraindicated.

WARNINGS: Caution patients about activities requiring alertness (e.g., operating vehicles or machinery). Antihistamines are more likely to cause dizziness, sedation, and hypotension in elderly patients. Patients should also be warned about the possible additive effects of alcohol and other CNS depressants.

Usage In pregnancy: Safe use in pregnancy has not been established. Use only when the potential benefits have been weighed against the possible hazards to the mother and child. Note that an inhibitory effect on lactation may occur.

PRECAUTIONS: Use with caution in patients with a history of bronchial asthma, increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension, hiatal hernia with reflux esophagitis, intestinal atony of the elderly or debilitated intestinal obstruction, myasthenia gravis, renal function impairment, and ulcerative colitis (severe).

Drug Interactions: MAO inhibitors, Alcohol or CNS depressants, especially anesthetics, barbiturates, and narcotics.

ADVERSE REACTIONS: Prolongs the response to nervous stimulation, potentiates the response to norepinephrine, and inhibits the response to tyramine.

Slight to moderate drowsiness occurs relatively infrequently with Chlorpheniramine Maleate. Other possible side effects common in antihistamines in general include perspiration, chills, dryness of mouth, nose and throat.

Cardiovascular System: Hypotension, headache, palpitations, tachycardia, extrasystoles.

Hematologic System: Hemolytic anemia, thrombocytopenia, agranulocytosis.

Nervous System: Sedation, dizziness, disturbed coordination, fatigue, confusion, restlessness, excitation, nervousness, tremor, irritability, insomnia, euphoria, paresthesias, blurred vision, diplopia, vertigo, tinnitus, acute labyrinthitis histeria, neuritis, convulsions.

Gastrointestinal System: Epigastric distress, anorexia, nausea, vomiting, diarrhea, constipation.

Genitourinary System: Urinary frequency, difficult urination, urinary retention, early menses.

Respiratory System: Thickening of bronchial secretions, tightness of chest and wheezing, nasal stuffiness.

DOSAGE AND ADMINISTRATION: Dosage should be individualized according to the needs and response of the patient. Adults: one capsule every 8 to 12 hours not to exceed 3 capsules daily. Not for use in children under 12 years of age.

OVERDOSAGE: Treatment of the signs and symptoms of overdosage is symptomatic and supportive. In the event of overdosage, emergency treatment should be started immediately.

Treatment: The patient should be induced to vomit, even if emesis has occured spontaneously. Vomiting by the administration of ipecac syrup is a preferred method. However, vomiting should not be induced in patients with impaired consciousness. Stimulants (analeptic agents) should not be used. Vasopressors may be used to treat hypotension. Short-acting barbiturates, diazepam or paraldehyde may be administered to control seizures. Hyperpyrexia, especially in children, may require treatment with tepid water sponge baths or a hypothermic blanket. Apnea is treated with ventilatory support.

HOW SUPPLIED: Green and clear capsules with green and white beads. Bottles of 100 tablets. NDC 0524-0031-01

Store at controlled room temperature 15-30°C (59°-86°F.).

CAUTION: Federal law prohibits dispensing without prescription.

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WHAT'S NEW?

Thomas Scientific's catalog is a hardcover, 2,008-page book listing over 80,000 items of laboratory supplies, equipment, instruments, glassware and reagents. The 1984-85 edition is now available. Because of its thorough, accurate descriptions and illustrations it serves as an excellent source for laboratory products. A free copy will be sent on request to Thomas Scientific, Vine Street at Third, Box 779, Philadelphia 19105.

Business Computer Solutions has upgraded the Medical Office Management computer system and renamed it the O.M.D. The new model is a modular-based word and dataprocessing system that integrates the business side with the professional side of medical practice. The O.M.D. will minimize paperwork for appointments, prescriptions, insurance forms, invoices and statements. It will also gather data such as patient histories and diagnosis/treatment information or calculate the productivity/profitability of the practice.

Schering, has FDA approval for marketing Diprolene™ Ointment (betamethasone dipropionate, USP Ointment 0.05%). It is a new topical corticosteroid which in clinical studies has demonstrated safety and efficacy in treatment of psoriasis as well as other dermatoses. It has been observed that skin areas not treated with the ointment have improved when adjacent areas are treated. The ointment is not recommended for children.

Instromedix has the latest in transtelephonic transmitters for monitoring physiologic pacemakers. The A+V Pacemaker Data Transmitter is designed to be used specifically with the A+V sequential pacemakers, but will monitor single chamber pacemakers as well. A single switch allows the patient to transmit the pacemaker pulse width artifact or the ECG only.

Isopedix has FDA approval for marketing the PROSET™ Support System. The Proset Cast is a firm, lightweight synthetic material that simultaneously sets and conforms to the injured area following the application of dry, warm air. It can be utilized for tubular bandages, for semi-rigid support and for limited action casts.

Searle has FDA approval to market Theo-24™ (theophylline anhydrous), the first once-a-day oral theophylline therapy in the U.S. It is indicated for the relief and/or prevention of symptoms of bronchial asthma and for reversible bronchospasm associated with chronic bronchitis and emphysema.

Alda Industries is marketing a new-style orthopedic chair which was developed by the Rehabilitation Department of Robert B. Brigham Hospital, Boston. The E-Z UP ARTHERAPEDIC CHAIR is especially useful in the post-operative management of total hip and knee arthroplasties and as an adjunct in the treatment of arthritis. Chair arms extend beyond the seat to make entry and exit easier and safer.

International Hospital Products announces a new method of identifying surgical specimens. The IHP SPECI-DENT System includes 10 anatomic and 11 descriptive labels. Identifying names are printed on both sides of the labels. Plain labels are also available. They are packaged sterile for use in surgery and are easily attached to the specimen.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Brentwood Instruments has a new microcassette recorder that can be programmed by the physician to sample the patient's cardiac function throughout the day. The EZ Scan 100 will automatically turn itself on every 15, 30, 60 or 120 minutes according to need. Length of the sample is also programmable, from 15 seconds to two minutes. In addition, the patient can activate the EZ Scan whenever symptoms are experienced and can add spoken comments to the recording. It is small and lightweight.

The 3M Company has a new disposable skin stapler for closing small incisions in the OR or Emergency Room. There are two models, the Precise Five-Shot skin stapler and the Precise Ten-Shot stapler. They are miniaturized instruments that dispense either five or 10 staples, a considerable saving as compared to the larger 3M staplers which are loaded with 15 to 35 staples.

Ross Laboratories announces the availability of ENSURE® HN High Nitrogen Liquid Nutrition and ENSURE PLUS® HN High Calorie, High Nitrogen Liquid Nutrition for stressed patients. ENSURE HN is an all-purpose, complete and balanced liquid food for those requiring increased nitrogen intake. ENSURE is available in vanilla in 8-fl-oz and 32-fl-oz cans and in chocolate in 8-fl-oz cans. ENSURE PLUS HN is available in vanilla in 8-fl-oz cans.

Orange Medical Instruments has introduced the Beta I—an advanced, compact insulin infusion pump. It combines the reliability of syringe delivery with the latest in microelectronics to offer safe, precise and simple control. Three programmable basal rates plus a bolus injection facilitate fast and simple rate changes without reprogramming. It has a control to prevent "pump runaway" and a full complement of audio and visual alarms.

Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	ARLIDIN	**ARALEN**
Category:	Peripheral vasodilator	Antimalarial
Brand Name:	Arlidin, USV	Aralen HCl, Winthrop
Generic Name:	Nylidrin HCl	Chloroquine HCl
Dosage Forms:	Tablets	Injection, Tablets (phosphate)
	MYAMBUTOL	**NEMBUTAL**
Category:	Antituberculosis	Sedative & Hypnotic
Brand Name:	Myambutol, Lederle	Nembutal, Abbott
Generic Name:	Ethambutol HCl	Pentobarbital
Dosage Forms:	Tablets	Capsules, Suppositories, Elixir, Injection

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State Health Commissioner

New information from
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Indiana State Board of Health
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Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

For more than a century, the Indiana State Board of Health has been responsible for the health of Indiana's citizens. In the last two decades, those responsibilities have become increasingly complex. They have required even more sophisticated systems of planning and resource allocation not only in services provided by the state but by the private health care system.

The Indiana State Board of Health has sought the participation and guidance of physicians in developing comprehensive health plans and monitoring the ways in which policies and programs they recommend are put into place in Indiana.

Indiana physicians' record of participation in this regard is outstanding. In the development of the current state health plan (The Indiana Plan for Health, 1982-1987), for example, various components of the Indiana State Medical Association reviewed and commented on each of the more than 50 programs included in that document based on assessed need. Your comments were significant and extremely helpful. As you are well aware, many other groups representing Indiana's citizens did the same thing.

That plan is being implemented now. A first-year monitoring report just completed shows about 90% compliance by the group of organizations which accepted responsibility for carrying out particular programs. The other 10% have problems of limited resources and changes in rationales for continuing to carry out recommended actions in the plan. They are still devoted to doing the best they can with resources available, however.

Even with this outstanding participation in plan development and the first-year results in putting programs in the plan into place, changing conditions are seriously threatening the applicability of the plan and the ability of the state to continue to implement it as proposed.

Those changing conditions have to do with services provided through health care facilities such as hospitals and nursing homes and how much the residents of Indiana can afford to pay for those services.

The experience up to the last year or so in the health planning program has been that it sought to provide services and programs based on assessed and demonstrated need and the financial feasibility of the proposals.

Generally, services were provided (i.e., approved by health planning) without significant regard to their future impact on the costs of the services to be offered. Needless to say, this cost pass-through approach to providing needed services has contributed to the ever-increasing cost of health care, an issue that now has national and state prominence and commands the attention of not only providers but government and business leaders and, in growing fashion, the general public.

All this attention to rising costs resulted this year in extensive and pointed discussions in public forums, especially the Indiana General Assembly, and in the passage by the legislature of a first attempt to do something to control those costs. Among actions considered was a moratorium on the construction of any health care facility during a period of time which would be utilized to work out a coordinated plan for providing needed services and facilities at affordable costs. Such a step was not taken, although it since has been discussed as a possible move to make.

What did result was a bill which requires the State Board of Health to gather from hospitals extensive information about their costs and the levels at which their various services are used, to analyze that data to determine how costs might be controlled and to make such information available to the general public. The bill also established a special study committee to look into prospective payment systems for hospitals, the relation of such systems to planning and resource allocation, and alternative ways of providing care that might also help to lower costs.

The discussions and the passage of this legislation gave new meaning to our planning efforts and turned them in a direction which places far more importance on the cost impact of proposals than ever before. It also requires us to be rather rigid in regard to whether a proposal is consistent with the plan and the guidance it provides.

For a variety of reasons, and in the face of the new signals from the legislature, the volume of proposals from health care facilities submitted to us for review this year is three times the average of the last several years. The State Health Plan shows much of it is not needed. Individual proposals attempt to make cases for meeting defined local community needs outside the projections of the plan. But many interests, including large consumers of and payors for services continue to say that the mere volume of proposed capital investment in the delivery system will bring unwarranted operating cost increases the public will not be able to afford, and the reimbursement mechanisms will not be capable of handling, in the future.

This is where help is needed in updating the policies and guidelines in the health plan. New legislative policies regarding the cost of care are in place. By administrative action, we are attempting to make these policies effective. Support for doing so is coming from several quarters. But more significant involvement is needed in developing these policies into operating procedures and doing so quickly and soundly.

Physicians and other providers are as much concerned about the cost issue as are those who use their services. But physicians, as close as they are to the general public, are in a unique position to be of special help at every level—community, area, regional and state—in addressing this issue.

So we feel perfectly comfortable in repeating to you a plea we made here last year:

"The cooperation of the medical profession is not only solicited but is absolutely essential if your state health (and planning) agency is successfully to meet its (expanded) responsibilities."

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New information from
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EVERY PHYSICIAN'S OFFICE—
A CANCER DETECTION CENTER

CANCER CORNER

National Conference on Advances in Cancer Therapy, Waldorf-Astoria Hotel, New York City, Dec. 8-10, 1983:

The continuing medical education objectives of this conference are to:

- Increase knowledge of the new scientific and technical developments which impact on cancer treatment,
- Increase understanding of the relationships of newer therapeutic modalities employed in cancer treatment and the multidisciplinary approach to patient management,
- Promote the adoption of a more positive approach to the curability of cancer when appropriate treatment is utilized, and
- Increase understanding of the differences between standard treatment regimens, protocol studies and clinical investigation in cancer therapy trials.

The multidisciplinary approach to managing the cancer patient will be stressed. Questions from the audience will be invited during the discussion periods. Attendance is open to members and students of the medical and health related professions. There is no registration fee. Advance registration is requested.

Order Program Mailer/National Conference on Advances in Cancer Therapy from Division Medical Affairs Department, Code #0305.03.

New Professional Education Slides—"Cancer Causes and Prevention: Clues from Epidemology"—A slide set consists of 77 colorful photos, drawings and charts. It is accompanied by a script illustrated with black-and-white reproductions of all 77 slides, to aid users in preparing programs.

This slide set summarizes what is known about: (a) which factors tending to cause cancer lie in people's "voluntary" environment (life-style), (b) which factors in their "involuntary" environment, and (c) which factors in heredity.

Orders may be sent to the Division Office, Code 3809. The audience for this slide set is physicians, medical students, dentists, nurses and other members of the health care team. In addition, portions of this set may be used for lay volunteers and selected public audiences.

Users are free to select slides and commentary to suit their program needs, or to present the complete set and script as produced.

Suggested accompanying materials are: Cancer Statistics, 1983, Code #3033; Cancer Facts and Figures, 1983, Code#5008; and Factbook for Medical and Related Professions, Code #3076.

Unproven Methods of Cancer Management: Macrobiotic Diets—After careful study of the literature and other information available to it, the American Cancer Society has found no evidence that treatment with macrobiotic diets results in objective benefit in the treatment of cancer in human beings.

Lacking such evidence, the American Cancer Society strongly urges individuals afflicted with cancer not to participate in treatment with macrobiotic diets. In addition, the more restrictive macrobiotic diets pose a serious hazard to health.

Professional Education Videotape on Clinical Progress Against Cancer: In response to numerous questions from Dr. Frank Field, science editor of NBC-TV, Dr. Holleb discusses specific advancements in early detection and in treatments for breast, cervical and colorectal cancers, as well as the remarkable success in treating Hodgkn's Disease and Acute Lymphocytic Leukemia. Assessing the fight against cancer over his 40-year career, Dr. Holleb establishes that there has indeed been enormous progress, especially contrasted against the high tolls the disease took in the 1940s.

This nine-minute video tape is particularly well suited for staff meetings, professional education meetings and as a plug-in feature to crusade meetings. Limited copies are available from the Distribution Department, Code # 5504.

Protocol Data Query: The National Cancer Institute (NCI) has developed a nationwide cancer information database called Protocol Data Query (PDQ). The database is now available to health professionals on the National Library of Medicine (NLM) MEDLARS System, and at many hospitals, libraries and universities, including all U.S. medical schools.

PDQ's initial database contains over 600 active treatment plans that are part of NCI's Cancer Therapy Evaluation Program. Featured also are the names and telephone numbers of physicians to contact at NCI-funded institutions that belong to 15 clinical trial groups, and 21 cancer centers throughout the United States. These contact physicians are cross-referenced by cancer site, treatment plan and geographic location.

Commonly asked questions about PDQ:

1. **Can the public get PDQ?** Not yet. PDQ is currently only available to physicians. For information or to ask any questions about cancer, call the Cancer Information Service (CIS) at 1-800-638-6694.

2. **How can doctors use PDQ?** PDQ is available on the National Library of Medicine's MEDLARS System.

3. **How will PDQ be kept-up-to-date on cancer treatment?** The most recent information available will be added to the database every month. Corrections will also be made at that time.

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cohol or other CNS-depressant drugs while
king Valium.

Yet another benefit Valium affords is flexibility. Available in 2-mg, 5-mg and 10-mg scored tablets, Valium enables you to titrate dosage to individual patient needs. For the geriatric patient, a starting dosage of 2 to 2½ mg once or twice a day is recommended. And, for patients who forget or skip medication, you can prescribe Valrelease™ (diazepam/Roche) 15-mg slow-release capsules, knowing that Valrelease will assure all the benefits of Valium 5 mg *t.i.d.* with the convenience of once-a-day dosage.

Discontinuation of Valium (or Valrelease) is typically as smooth as its start in short-term therapy. However, Valium and Valrelease should be discontinued gradually after more extended treatment. As you diminish dosage, the built-in tapering action of Valium and Valrelease will help avoid rapidly recurring anxiety symptoms and symptoms of withdrawal, and will help ease the patient's transition to independent coping when therapeutic goals have been achieved.

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For a summary of product information, please turn the page.

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Valium® (diazepam/Roche) Ⓝ Tablets
Valrelease™ (diazepam/Roche) Ⓝ slow-release Capsules
Injectable Valium® (diazepam/Roche) Ⓝ

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome. *Oral forms* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures; tetanus; anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion.

The effectiveness of diazepam in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Tablets or capsules in children under 6 months of age; known hypersensitivity; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

> *Usage in Pregnancy:* **Use of minor tranquilizers during first trimester should almost always be avoided because their use is rarely a matter of urgency and because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral forms adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE: *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins,* i.e., *dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Injectable Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest; concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea; have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least 1/3, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs.

Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of diazepam, *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed and tolerated).

The clearance of diazepam and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

INJECTABLE: Although promptly controlled, seizures may return; readminister if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, observed in patients during and after diazepam therapy are of no known significance.

INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.

In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Dosage: Individualize for maximum beneficial effect.

ORAL. *Adults:* Anxiety disorders, relief of symptoms of anxiety—Valium (diazepam/Roche) tablets, 2 to 10 mg b.i.d. to q.i.d.; or 1 or 2 Valrelease capsules (15 to 30 mg) daily. Acute alcohol withdrawal—tablets, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; or 2 capsules (30 mg) the first 24 hours, then 1 capsule (15 mg) daily as needed. Adjunctively in skeletal muscle spasm—tablets, 2 to 10 mg t.i.d. or q.i.d.; or 1 or 2 capsules (15 to 30 mg) once daily. Adjunctively in convulsive disorders—tablets, 2 to 10 mg b.i.d. to q.i.d.; or 1 or 2 capsules (15 to 30 mg) once daily.

Geriatric or debilitated patients: Tablets—2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated (see Precautions). Capsules—1 capsule (15 mg) daily when 5 mg oral Valium has been determined as the optimal daily dose.

Children: Tablets—1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use in children under 6 months). Capsules—1 capsule (15 mg) daily when 5 mg oral Valium has been determined as the optimal daily dose (not for use in children under 6 months).

INJECTABLE: Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)

For dosages in infants and children see below; have resuscitative facilities available.

I.M. use: by deep injection into the muscle.

I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., *dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcohol withdrawal, 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses); in children *administer I.V. slowly*; for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary; in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available.

Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary, keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. Infants (over 30 days) and children (under 5 years), 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). Children 5 years plus, 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred); repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.

In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure; if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M.; in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectable form, patient may be placed on oral form if further treatment is required.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure; employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension. Dialysis is of limited value.

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ORAL: Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100 and 500; Prescription Paks of 50, available in trays of 10; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25 and in boxes containing 10 strips of 10.

Valrelease (diazepam/Roche) slow-release capsules—15 mg (yellow and blue), bottles of 100; Prescription Paks of 30.

INJECTABLE: Ampuls, 2 ml, boxes of 10; Vials, 10 ml, boxes of 1; Tel-E-Ject® (disposable syringes), 2 ml, boxes of 10. Each ml contains 5 mg diazepam, compounded with 40% propylene glycol, 10% ethyl alcohol, 5% sodium benzoate and benzoic acid as buffers, and 1.5% benzyl alcohol as preservative.

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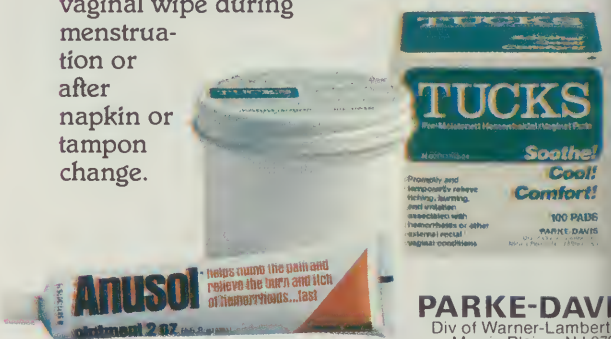
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Rheumatoid Arthritis: Diagnosis and Management

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Indianapolis

RHEUMATOID ARTHRITIS (RA) is a chronic inflammatory disease of the joints frequently associated with systemic manifestations. It affects 1-3% of the population, with an increased incidence in a few groups such as the Pima and Blackfoot Indians. Women are affected more commonly than men. The peak age of onset is 25-55 years.

Etiology and Pathology

The etiology of RA is unknown, but several theories have been proposed. Mycoplasma can cause a polyarthritis in animals. Rheumatoid factor, an antiglobulin found in many patients with RA, binds to the Fc fragment of IgG, and it can also bind to streptococcal cell wall peptidoglycans. When streptococcal cell wall fragments are injected into rats, a chronic polyarthritis resembling RA develops. Therefore, some workers have proposed that bacterial infection may cause RA. Slow viruses and the Ebstein-Barr virus have been suggested as possible inciting agents because of the presence of high titers of antibodies to Ebstein-Barr virus nuclear antigen in some patients with RA.

Autoimmune mechanisms may be involved in the pathogenesis of RA. This has been suggested by the presence of autoantibodies like rheumatoid factor. A genetic predisposition may also play a role because of the increased incidence of the HLA antigens, Dw4 and DRw4, in patients with RA.

The earliest pathological change in RA is probably an increase in blood flow to the synovium, followed by a proliferation of the synovial villi, which greatly increases the surface area of the synovium. Pannus, a cellular inflammatory infiltrate which can invade cartilage and bone by direct extension, develops, and cartilage and bony erosions occur. With progressive disease, there is decreased bone mass, represented by juxta-articular demineralization. Pro-

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FIGURE 1: Ulnar deviation, especially marked in the right hand. Note enlargement (synovitis) of the MCP joints of the right hand.

staglandins may be responsible for the bone resorption.

Clinical Features

The onset of RA is insidious in 60-70% of patients. Early in the illness, some patients have constitutional symptoms, such as fever, fatigue, and weight loss. Early morning stiffness involving the small joints of the hands, wrists, and feet, as well as the elbows, knees, and shoulders, is common and can last for several hours. Gelling is the phenomenon of increased stiffness and discomfort after disuse, as with sitting or resting, which improves with use. This is essentially an equivalent of morning stiffness at a later time of day and is common in RA. Joint pain and swelling occur. Joints are usually affected in a bilaterally symmetrical distribution. Decreased range of motion occurs. The cervical spine is often involved later in the disease. The temporomandibular joints or cricoarytenoid joints may be sites of arthritis. Eventually, patients may develop rheumatoid nodules and joint deformities. There are many extra-articular manifestations of RA, and these will be discussed later.

Some patients may present with atypical patterns of RA. A juvenile rheumatoid arthritis-like picture with fever, rash, and arthritis in a few joints (pauciarticular) can be seen. Twenty per cent of patients who have so-called palindromic rheumatism, which is episodic swelling of the knees and wrists, eventually develop classical RA. There is also a subgroup known as seronegative RA, which will be discussed shortly. Young women can present with bilateral knee effusions without erosive or systemic disease. This is usually a self-limited process. Older men can present with marked swelling and stiffness of only the hands and wrists. Patients who are paralyzed frequently have sparing of the paralyzed joints if RA begins after paralysis develops. This suggests that the use of a joint is important in the pathogenesis of RA.

Physical findings in classical RA include bilaterally symmetrical polyarthritis, characteristically involving the proximal interphalangeal (PIP) joints, metacarpophalangeal (MCP) joints, wrists, elbows, shoulders, knees, ankles and feet. Joint effusions are common, especially in the knees. One can feel the synovitis as a boggy synovial proliferation around the affected joints. There can be decreased range of motion, which is usually due to swelling early in the disease and to joint destruction later. Nodules may be found over joints, along the extensor surfaces of the forearms, and at pressure points, such as the ischial tuberosities and the occiput. Patients can develop tenosynovitis. Popliteal or Baker's cysts can occur in the knees and can either dissect or actually rupture into the gastrocnemius muscle and mimic thrombophlebitis. Patients with RA can develop carpal tunnel syndrome, which is a median nerve neuropathy due to pannus in the carpal tunnel itself. This condition is manifested by paresthesias of the thumb, second, and third finger, and radial aspect of the fourth finger. The paresthesias can be reproduced by tapping the volar surface of the wrist (Tinel's sign).

Several fairly typical musculoskeletal abnormalities occur in RA. Ulnar deviation is due to subluxation at the wrist resulting from inflammation of the ligaments and tendons (*Fig. 1*).

A boutonniere deformity is a fixed flexion contracture of the PIP joint with hyperextension of the DIP joint (*Fig. 2*). It is caused by weakening or rupture of the central slip of the extensor tendon due to inflammation.

Swan-neck deformities are hyperextension deformities of the PIP joint and flexion of the DIP and MCP joints resulting from contracture of the interosseous muscles and the flexor muscles and tendons (*Fig. 3*). A patient with such a deformity is unable to flex the PIP joint when the MCP joint is held in extension. Tendon ruptures may occur.

One should assess the patient's functional capacity since this is a useful means of describing a patient to others and is also helpful in determining the effect of therapeutic intervention on the disease. Class 1 refers to a patient who is capable of all activities. Class 2 is a patient with moderate restriction who can care for himself or herself and carry out most normal activities despite discomfort. Class 3 refers to a patient with marked restriction who can take care of himself or herself but cannot pursue his or her usual occupation or other activities. Class 4 is a patient who is confined to a bed or a wheelchair.

The diagnosis of RA cannot be made from laboratory results. It is a clinical diagnosis. The sedimentation rate is fre-

quently elevated and often reflects the activity of the disease. The rheumatoid factor is positive in 70-80% of patients at some point in the course of their illness but is frequently negative early in the disease. The titer of rheumatoid factor does not reflect disease activity, but patients with high titers do tend to have more severe disease. There is a distinct subset of patients with RA who are persistently seronegative with respect to rheumatoid factor. Their disease, however, is basically similar to that of seropositive patients. The antinuclear antibody test can be positive in some patients. Patients with RA frequently have the normocytic, normochromic anemia of chronic disease. Of course, they can also develop iron-deficiency or other types of anemia as a result of therapy (see below). Serum protein electrophoresis may reveal a polyclonal hyperglobulinemia. Patients who have Felty's syndrome, which will be discussed shortly, can have significant neutropenia.

Arthrocentesis should be performed when joint fluid is first available because it helps to suggest or confirm the diagnosis. Furthermore, patients with RA are more susceptible to joint infections than are normal individuals, and therefore it is necessary to exclude the possibility of a septic joint in a patient with RA, i.e., a joint should be aspirated when it has become acutely inflamed, especially if it is involved out of proportion to other joints. The joint fluid of a non-infected RA joint is inflammatory, usually containing less than 50,000 white cells which are predominantly polymorphonuclear leukocytes. The fluid has a poor viscosity, a characteristically low glucose, negative gram stain and culture, and a poor mucin clot. The mucin clot test is a measure of hyaluronic acid. One dilutes a small amount of synovial fluid three or fourfold with dilute acetic acid. In normal fluid, a good mucin clot will form at the bottom of the test tube and the rest of the fluid above it will be clear. In inflammatory synovial fluid, the clot is friable and flocculent and the fluid above it is cloudy.

Radiographic findings in RA include soft tissue swelling, juxta-articular osteoporosis, and, later on in the disease, erosions, joint narrowing, and deformity (*Fig. 4*). A symmetrical distribution of involvement of the PIP joints, MCP joints, wrists, and other joints described earlier is suggestive of RA.



FIGURE 2: Boutonniere deformity of the fourth finger.

There are many extra-articular manifestations of RA. The most common are rheumatoid nodules. As previously mentioned, these are subcutaneous nodules occurring particularly over joints and over pressure points like the extensor surface of the ulna and the ischial tuberosities. They are probably due to vasculitis.

Patients with RA can develop anemia, which is often normocytic and normochromic. Felty's syndrome, the association of splenomegaly and neutropenia with RA, can occur. Patients with Felty's syndrome usually have very severe, deforming RA with subcutaneous nodules and a high titer of rheumatoid factor. They have an increased incidence of infection. The neutropenia may be due to margination, antibodies to polymorphonuclear leukocytes, or splenic sequestration of white cells.

Sjogren's syndrome occurs in about 50% of patients with RA, usually later in the disease and in patients with high titers of rheumatoid factor. Sjogren's syndrome is defined as the presence of two of three of the following criteria: keratoconjunctivitis sicca or dry eyes, xerostomia or dry mouth, and a connective tissue disease, usually RA.

Vasculitis can be associated with severe disease. It is probably due to the deposition of immune complexes in blood vessels. These immune complexes are composed of IgG, IgM, and complement. Vasculitis occurs more frequently in males, especially in those with high titers of rheumatoid factor. The presentation of the vasculitis depends on the size of vessels involved. A polyarteritis nodosa-like syndrome can be seen. Skin ulcerations and mononeuritis multiplex can occur. Glomerulonephritis is rare. Cryoglobulins can be found.

Pulmonary manifestations may include vasculitis, pleurisy, and pleural effusion. The latter is most common, usually occurs in males, and is frequently painless. The fluid has a characteristically low glucose, as do all effusions in RA. The white count is usually less than 25,000.



FIGURE 3: Swan-neck deformities of the second through fifth fingers.

Nodules can occur in the lungs and are usually asymptomatic. They are frequently found on a routine chest radiograph. One must exclude tumor when one sees such a nodule on a roentgenogram. Caplan's syndrome occurs in RA patients who were exposed to dust in coal mines. In this condition, there are rapidly progressing, coalescent nodules which can lead to pulmonary insufficiency. Interstitial fibrosis can occur late in RA, usually in women. Abnormal pulmonary function tests are found in 50% of RA patients who are tested, and these patients are usually asymptomatic.

Pericardial effusion on echocardiography is found in half of patients with active disease. Pericardial tamponade is rare. As with all other effusions in RA, the glucose is very low. Myocardial involvement can occur in severe RA. Granulomas can develop on the valve leaflets and in the myocardium. Conduction defects can occur. Coronary arteritis has been described.

Ocular involvement includes Sjogren's syndrome, episcleritis, and scleritis. Patients can develop posterior subcapsular cataracts as a result of steroid therapy.

Patients can develop disuse atrophy of the muscles or occasionally focal myositis. Juxta-articular demineralization occurs. Some patients with long-standing disease have developed amyloidosis.

Management

There are many components to the management of RA. In general, when the disease is active, the patient should rest as much as possible. Physical therapy is useful to maintain movement in involved joints once the acute flare is over. Patients should be involved in a physical therapy program, but they should be instructed not to over-use inflamed joints. The goals of physical therapy in RA are to maintain motion, prevent loss of muscle mass, minimize deformity, and teach the patient how to use the joints without causing excessive trauma. Occupational therapy includes physical therapy of the upper extremity. Occupational therapists can also provide the patient with many useful tools to make the activities of daily living much more comfortable and easily accomplished.

Drug therapy is essential in the management of RA. One begins treatment with either salicylates or with one of the other nonsteroidal anti-inflammatory drugs. Most of the nonsteroidals other than salicylates require two-three weeks before benefits are evident. It is not uncommon to need to change medications until a drug is found that is helpful for a particular patient. Salicylates and other nonsteroidals are used in patients who have no erosions and fairly mild synovitis or as adjuncts to the use of a remittive agent, as will be described shortly.

Salicylates include regular aspirin, as well as choline magnesium trisalicylate and choline salicylate. The latter two do not acetylate platelets. Salicylates are prescribed in high divided doses to achieve levels of 20-30 mg/dl. This is usually accomplished by administering 3-6 gm of aspirin a day. Salicylates do not affect bone or cartilage destruction, but they do decrease inflammation.

A major side effect of salicylates is dyspepsia. This can be treated with antacids, but if signficant dyspepsia persists salicylates should be discontinued and another nonsteroidal tried. Many people on adequate doses of salicylates do have some occult blood in their stools, but this is usually not clinically significant. Patients can develop symptomatic gastritis or even peptic ulcers while taking salicylates. Another common side effect of salicylates is tinnitus, which is an indication for reduction of the dose. Salicylates, especially plain aspirin, should probably be tried in the management of RA, if the patient can tolerate it.

The other nonsteroidal anti-inflammatory agents include the phenylalkanoic acids (ibuprofen, naproxen, fenoprofen), the indoles, indenes, and pyroles (indomethacin, sulindac, tolmetin), the pyrazolon derivatives (phenylbutazone, oxyphenbutazone), and other newer agents including piroxicam. If one agent does not work, one frequently tries another, since different drugs are beneficial to different patients. Like salicylates, these agents do not cause remission and do not prevent bone and cartilage destruction as far as we know, but, like aspirin, they do decrease inflammation. A bedtime dose of indomethacin can be very helpful in decreasing morning stiffness. Salicylates and other nonsteroidals probably should not be used concurrently.

Corticosteroids do not have a major role in the treatment of RA. The average

RA patient does not need corticosteroids. Occasionally, corticosteroids may be prescribed to manage a patient through an acute flare until a remittive drug like gold or penicillamine starts to take effect. In this situation, one would use a very low dose of corticosteroids, usually less than the equivalent of 10 mg of prednisone a day in a single dose. Corticosteroids do not change the course of RA and can, in fact, probably contribute to joint destruction.

There are a few situations in which corticosteroids are important in therapy. They are used in high dosage for vasculitis and for other life-threatening complications, such as severe Felty's syndrome or severe pericarditis. Judiciously used intra-articular corticosteroids can be beneficial when a patient has a flare in a single joint after joint infection has been excluded by arthrocentesis. One should not inject any single joint with corticosteroids more than three times a year.



FIGURE 4: Severe rheumatoid arthritis of the wrist, demonstrating loss of joint space, demineralization and erosions.

Several potentially remittive agents are available for the treatment of RA. These agents arrest the progression of RA in some patients. However, they can have significant toxicities and should be used only by physicians who are very familiar with them and only in patients who can be adequately followed.

Gold is one of the most commonly used remittive agents. It is indicated for progressive RA with synovitis and erosions when disease activity has been persistent for four-six months and has been uncontrolled by more conservative treatment, such as salicylates or other nonsteroidals. It should be used only when there is evidence of reversible disease. One does not use gold in a patient who has burned-out, deforming RA without active synovitis. Gold usually requires about two-three months before beneficial effects are noted. The benefits can last for many years after discontinuation because of the deposition of gold in the body. Similarly, the side effects, too, can last for a long time after the gold is stopped. Gold actually can alter the course of RA. There is evidence that it decreases existing erosions and prevents the occurrence of new erosions. It certainly can have a very significant clinical effect in producing remission of synovitis, reversing anemia, and producing a sense of general well-being.

Gold has many toxicities, both minor and major, and many patients cannot complete a therapeutic course. Of those who do complete a course of gold, about 20-40% go into remission, 40-60% are improved, and 10-20% are unchanged. About a third of patients are treatment failures because of lack of response or toxicity.

Gold is given as a weekly intramuscular injection. Gold is usually continued until either a total dose of 1 g has been administered or until toxicity or major improvement occurs. If 1 g has been given and response has occurred, the frequency of injections can be decreased to every two-three weeks.

Minor toxicities include skin rash, which can be treated by stopping the drug. Usually the rash does not recur on subsequent rechallenge. Stomatitis is another side effect which is also treated by discontinuing gold. Occasionally, patients will tolerate gold when rechallenged after the stomatitis resolves. When skin rash or stomatitis is particularly severe, a short course of prednisone may be beneficial. Patients sometimes develop mild proteinuria, which is managed by discontinuing gold therapy. Patients can develop a "nitritoid" reaction, consisting of nausea, syncope, and flushing, after treatment with gold sodium thiomalate, one of the two most commonly used gold preparations. This reaction does not occur after the use of the other common preparation, aurothioglucose, so the obvious way to manage nitritoid reactions is to give such patients aurothioglucose instead. More significant side effects include development of nephrotic syndrome or glomerulonephritis, agranulocytosis, and aplastic anemia, which can be fatal. These side effects necessitate discontinuation of gold without subsequent rechallenge.

Patients receiving gold should have weekly complete blood counts, platelet counts, differentials, urinalysis, and queries concerning symptoms. If progressive anemia, leukopenia, thrombocytopenia, proteinuria, or hematuria

are observed, gold should be discontinued and no rechallenge attempted until these abnormalities have resolved. If the abnormalities have been severe, gold should not be administered again.

D-penicillamine is another remittive agent which is nearly as effective as gold. It may be more beneficial than gold for extra-articular disease, particularly vasculitis. It is indicated for patients with progressive disease, before deformities have developed, as an alternative to gold. One never gives penicillamine and gold at the same time, since these agents have essentially the same side effects and one could not tell which drug was causing any side effect that occurred. Penicillamine has the virtue of being an oral agent. Patients usually begin at a low dose, which can be increased every three months if tolerated up to a higher level. The toxicities are very similar to gold. Patients should have complete blood counts, platelet counts, differentials, urinalysis, and questioning every two-three weeks.

Hydroxychloroquine, an antimalarial drug, can also be a remittive agent in the treatment of RA. It is perhaps somewhat less effective than gold and penicillamine, but it has fewer side effects. It, too, has a delayed onset of action. It is given to patients who need more than nonsteroidals but who either cannot take gold or penicillamine or who have mild enough disease that one does not want to risk the side effects of these agents. The major side effect of hydroxychloroquine is retinal toxicity due to deposition of the drug in the retina. In the past, this occurred in about 15% of patients and was related to dose and duration of therapy. It is less common now with the use of doses limited to no more than 200 mg a day. Patients should be followed with ophthalmological examinations every six months while receiving hydroxychloroquine.

Other agents that can be used in the treatment of RA are cytotoxic drugs, such as azathioprine, cyclophosphamide, and methotrexate. These drugs are reserved for patients with rapidly progressive disease unresponsive to other agents. They are especially useful in patients with life-threatening disease. They should only be administered by physicians who are very familiar with them, as they have very significant and potentially fatal toxicities.

Surgery can be very helpful in some patients to relieve pain and improve function. Synovectomy can be beneficial in the management of very active synovitis of the MCP joints, wrists and knees. Various soft tissue procedures can be performed on the hands for swan-neck deformities, boutonniere deformities, and tendon ruptures. Carpal tunnel release can be performed for median nerve neuropathy. Metatarsal head resection can provide a great deal of relief from foot pain. Total joint replacements, particularly hip and knee, can be beneficial in patients with severe destruction of these joints.

In summary, RA is a systemic disease of unknown etiology which can usually be managed by a combination of medications, physical and occupational therapy, and occasional judicious surgical intervention.

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Critical Care Medicine

A National Institutes of Health Consensus Report

A CONSENSUS DEVELOPMENT CONFERENCE was held at the National Institutes of Health on March 7-9, 1983, to discuss issues related to the practice of critical care medicine.

NIH Consensus Development Conferences bring together investigators in the biomedical sciences, practicing physicians and other health professionals, and representatives of the public to provide a scientific assessment of medical technologies and to develop a consensus statement on their safety and effectiveness.

On the first two days of the meeting, a Consensus Development Panel and members of the audience heard scientific presentations from a distinguished group of medical scientists. The panel then considered the following questions:

1. Is there empirical evidence that intensive care units (ICUs) cause a decrease in patient morbidity or mortality? Which patients are most likely to benefit from intensive care?

2. What skills are essential for personnel in a critical care unit? How should these personnel be trained and organized to assure the best care for patients most in need?

3. What special technology and therapeutic interventions should be routinely available for the most effective ICU function?

4. How is a hospital's critical care delivery system best structured: one large multispecialty unit or multiple small subspecialty units?

5. How has the development of ICUs affected the traditional functions of a hospital?

6. What direction should critical care research follow?

Members of this panel included biomedical investigators, critical care physicians, other medical specialists, nurses, a biostatistician, and a jurist.

Critical care medicine (CCM) is a multidisciplinary and multiprofessional medical/nursing field concerned with patients who have sustained or are at risk of sustaining acutely life-threatening single or multiple organ system failures due to disease or injury. These conditions necessitate prolonged minute-to-minute therapy or observation in an intensive care unit (ICU) which is capable of providing a high level of intensive therapy in terms of quality and immediacy.

In its broadest meaning, CCM includes management at the scene of onsent of critical illness or injury, during transportation, in the emergency department, during surgical intervention in the operating room, and finally in the ICU. However, this consensus report is limited to CCM as it relates to the adult patient's management in the ICU. The report focuses not only on units that offer the full range of CCM but also on units providing a narrower range of critical care services. However, pediatric and neonatal CCM, the care of patients with burns, and all forms of extra-hospital care are not addressed in this report. Although these units are excluded from this report, valuable similarities with other ICUs in their organization and structure should not be ignored.

While critical care may be considered a higher level of management than intensive care, the two terms are used synonymously in this report.

1. Is there empirical evidence that intensive care units cause a decrease in patient morbidity or mortality? Which patients are most likely to benefit from intensive care?

The estimation of the efficacy of ICUs with respect to mortality and morbidity can be made only in the context of the patient populations admitted, the objectives for admission, the interventions which are being employed and the alternate patient management systems to which comparisons could be made. Mortality and morbidity may refer to events occurring in the ICU, hospital, or during a longer period of follow-up. Uniform goals and results for all ICUs are not attainable or desirable.

Historically, intensive care units were organized to serve specific purposes such as rhythm monitoring, the care of postoperative patients, airway maintenance and mechanical ventilation for patients with reversible neurological disease. The highly favorable outcomes derived from such specialized care served as the stimulus for establishing large numbers of such units. Over the past two decades, the availability of physical resources, nursing staff, and related specialized procedures, as well as patients' expectations, have resulted in an expansion of the original indications for admission to categories of patients for whom the achievable benefits are less clear.

There is empirical evidence that interventions commonly restricted to areas designated as intensive, coronary, or critical care units result in a decrease in mortality or morbidity. However, evidence for such a benefit can be considered unequivocal for only a portion of the heterogeneous patient populations currently admitted to such units. For a larger proportion of patients, evidence is equivocal but the weight of clinical

opinion is that ICU care improves survival. It is recognized, however, that for some patients the risk of iatrogenic illnesses associated with ICU care may outweigh any potential benefit.

This spectrum of ICU effectiveness for different patients can be better understood by considering some typical patient categories.

First is the patient with acute reversible disease for whom the probability of survival without ICU intervention is low, but the survival probability with such interventions is high. Common clinical examples include the patient with acute reversible respiratory failure due to drug overdose, or with cardiac conduction disturbances resulting in cardiovascular collapse but amenable to pacemaker therapy. Because survival for many of these patients without such life-support interventions is uncommon, the observed high survival rates constitute unequivocal evidence of reduced mortality for this category of ICU patients. These patients clearly benefit from ICU care.

Another group consists of patients with a low probability of survival without intensive care whose probability of survival with intensive care may be higher—but the potential benefit is not as clear. Clinical examples include patients with septic or cardiogenic shock. The weight of clinical opinion is that ICUs reduce mortality for many of these patients, though this conviction is supported only by uncontrolled or poorly controlled studies. Often these studies do not allow one to distinguish between ICU effectiveness and the effects of patient selection and/or differences in cointerventions that do not require the ICU.

A third category is patients admitted to the ICU, not because they are critically ill, but because they are at *risk* of becoming critically ill. The purposes of intensive care in these instances are to

Special Attention for Critical Care Medicine

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This is an important day for the new specialty of Critical Care Medicine (CCM) with the establishment of a new scientific section of THE JOURNAL dedicated to that specialty. It is with great pleasure that I assume the responsibilities of contributing editor for this new section.

The goals of the section include: (1) presentation of clinical and scientific concepts directly relating to the care of the critically ill patient; (2) discussion of hospital critical care delivery systems; and (3) discussion of the medico-legal-ethical issues intrinsic to intensive care medicine.

Currently, the appropriate specialty boards are deliberating on the mechanics of formally establishing the specialty of CCM and the first CCM board exams are tentatively scheduled for late 1984.

The Society of Critical Care Medicine has sponsored the publication of the *Journal of Critical Care Medicine* for several years, and following these developments the journal *Chest* and the *Journal of the American Medical Association* have also established new sections on CCM. Year Book Medical Publishers have inaugurated this year a new *Year Book on Critical Care Medicine* providing editorial review of the world's literature on CCM.



Dr. Iverson, a member of the teaching staff, Department of Internal Medicine at Methodist Hospital, Indianapolis, is certified by the American Board of Internal Medicine.

It is fitting to introduce our new section of CCM with publication of the complete report of the N.I.H. Consensus Development Conference on CCM, held in March 1983. The report will be of special interest to intensive care physicians and nursing directors as well as hospital administrators. Hospital staff intensive care committees may find this consensus report useful as a springboard for further planning.

In subsequent months, I will be soliciting articles for publication in this section from physicians active in the practice of CCM, as well as from other medical and surgical specialists and non-physician support personnel who all participate in the team approach to the care of the critically ill patient. Voluntary contributions which meet the intent of the goals previously outlined are welcomed by THE JOURNAL.

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prevent a serious complication or to allow a prompt response to any complication that may occur. It is presumed that the prompt response to a potentially fatal complication made possible by continuous monitoring plus the concentration of specialized personnel in the ICU increases the probability of a favorable outcome. The risk of complication may be high (as in the patient with acute myocardial infarction and complex ventricular ectopy) or low (as in the patient with myocardial infarction suspected because of chest pain in the absence of electrocardiographic abnormalities). Also, the differences in probability of a favorable outcome following a complication inside rather than outside the ICU may be large (as in the patient with postcraniotomy intracranial bleeding) or small (as in the patient with gastrointestinal bleeding).

The strength of evidence supporting the effectiveness of the ICU varies with the probability of a complication and with the difference in expected outcome inside and outside the ICU. When the risk of complication is high and the potential gain large, a decrease in mortality is likely. Similarly, when the risk is low and the potential gain small, an observable decrease in mortality is unlikely. These patients are not likely to benefit from ICU care.

The risk of iatrogenic morbidity and mortality for all patients must be included in consideration of ICU effectiveness. Complications associated with major interventions are not infrequent despite the concentration of skilled personnel in the intensive care unit. More subtle ill effects, including anxiety and psychiatric disturbances, are common and may increase the incidence of complications for which patients are monitored (e.g., ventricular arrhythmias in the coronary patient). Technical difficulties, errors in interpretation, increasing interventions induced by continuous monitoring, facilitated by immediate availability of personnel and equipment, are potential hazards for the monitored patient. Iatrogenic illness rates in the ICU are not known with any precision. This gap in our knowledge contributes substantially to our uncertainty about the effectiveness of ICU care.

A difficult clinical problem in the allocation of ICU resources is the disposition of patients with a very low probability of survival despite optimal ICU care.

It is not medically appropriate to devote limited ICU resources to patients without reasonable prospect of significant recovery when patients who need those services, and who have a significant prospect of recovery from acutely life-threatening disease or injury are being turned away due to lack of capacity. It is inappropriate to maintain ICU management of a patient whose prognosis has resolved to one of persistent vegetative state, and it is similarly inappropriate to employ ICU resources where no purpose will be served but a prolongation of the natural process of death.

Coronary care units (CCUs) deserve separate consideration as they represent the largest group of specialized intensive care units. These units appear to have improved survival of patients hospitalized with acute myocardial infarction. This change relates to the traditional function of CCUs; i.e., observations of cardiac rhythm, prompt recognition of life-threatening arrhythmias, and appropriate drug and electrical cardioversion therapy. Since mortality within the first 24 hours following infarction is due primarily to ventricular fibrillation and since this arrhythmia (or "warning arrhythmia") is more likely to be treated successfully in monitored units than in general services, the assumption is made that the current relatively low hospital mortality from myocardial infarction is due to CCUs.

Considerable knowledge of the natural history and pathophysiology of acute myocardial infarction has accrued as a result of CCUs. Much of this relates to risk stratification based on clinical observations, demographic and hemodynamic factors, and characterizations of electrocardiographic phenomena, etc. Principles of therapy have evolved which reflect the heterogeneous nature of the disease; e.g., short-term, nonintervention care for low risk patients; aggressive, invasive medical/surgical therapy for high risk patients or for those who develop complications of myocardial infarction such as cardiogenic shock. The use of high risk procedures such as coronary angiography or intraaortic balloon counterpulsation in patients with acute myocardial infarction requires a fine degree of judgment since the short- and long-term benefits have not yet been clarified.

In characterizing the effectiveness of CCU and ICU care it should be recognized that this is subject to ongoing change due to the interaction between trends in the natural history of those diseases leading to admission and improvements in available technology. For example, within two decades, potent antiarrhythmic agents, pulmonary artery catheters, computerized cardiac output measurements, and intraaortic balloon pumps have all been introduced to the coronary care unit. During the same period, a major national improvement has developed in the control of hypertension and interest in cardiac fitness. From another less complex perspective, the apparently "fixed" mortalities of respiratory failure, from poliomyelitis and idiopathic respiratory distress syndrome of the newborn, have been changed dramatically by the introduction of intermittent positive pressure ventilation and continuous positive airway pressure, respectively.

In both instances, a single maneuver, not previously considered for use in those diseases, changed outcome almost overnight. For these reasons, decisions as to which patients may benefit must be subject to ongoing revision, based on continuously updated data. Considerations as to whom to exclude from access to intensive care should not ignore this changing picture.

2. What skills are essential for personnel in a critical care unit? How should these personnel be trained and organized to assure the best care for patients most in need?

Essential Skills for an ICU

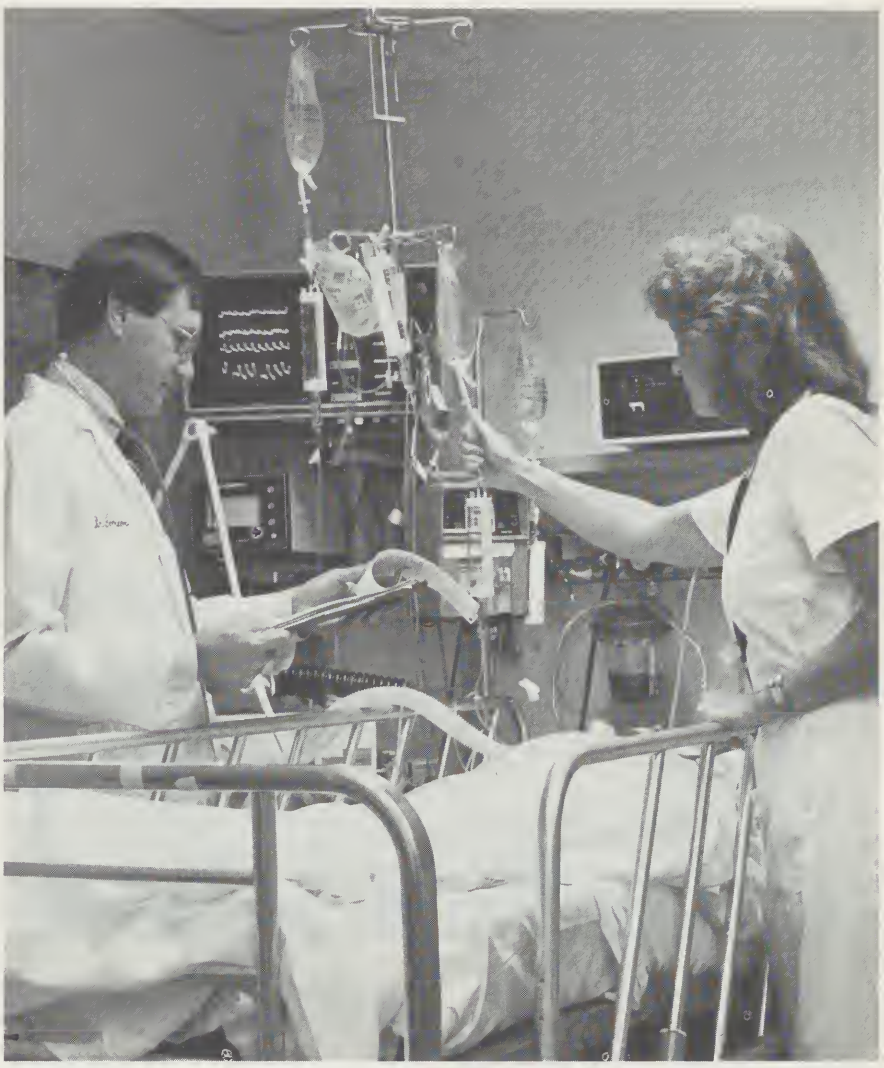
The skills essential for ICU personnel depend on the level of responsibilities and mission of that unit. For example, a CCU will require distinctly different skills from those required in a trauma unit. Skills required of a nurse or primary physician may be different from those required of the director of the ICU.

Once the mission of the ICU is established and the boundaries of expertise in the ICU are defined, certain specific skills may be omitted. For example, if the hospital lacks an active neurosurgical program, skills unique to a neurosurgery unit can be excluded and patients requiring this expertise will by necessity be triaged elsewhere.

Some personnel skills are generic to any ICU:

Decision-Making Skills. Clear lines of authority must be established for decision making. Certain decisions will be made as policy of the ICU with exceptions depending on the needs of the individual patient. Qualified personnel other than physicians may make life-saving decisions about interventions without prior consultation with the responsible physician. For each patient, medical management decisions should be made by a physician-coordinator who may delegate decision-making responsibility to other members of the ICU health care team and consultants. The physician-coordinator may be either an ICU-based physician or another physician credentialed by the hospital; but in the case of every patient the physician-coordinator will be explicitly designated.

Equipment Skills. Qualified personnel must be available to inspect, maintain, and calibrate equipment used for monitoring and life support. All ICUs should be capable of arrhythmia monitoring and have equipment immediately available for cardiopulmonary resuscitation. Other equipment skills will differ depending on the mission of the ICU. For example, intracranial pressure monitoring may be important in a neurological unit, whereas such skills would not be required in a CCU.



Dr. Robert L. Iverson, co-director of the Adult Intensive Care Unit, Methodist Hospital, Indianapolis, and Linda Joray, R.N., patient care preceptor, attend to an ICU patient.—PHOTOS BY DAVID C. WILLOUGHBY

Procedure Skills. For a CCU and an intermediate CCU, arrhythmia detection and treatment and resuscitation skills are the basic procedural necessities. At the other end of the spectrum, a large medical/surgical ICU usually would have the procedural abilities of placing and maintaining arterial lines, placing and maintaining pulmonary artery catheters and central venous lines, inserting endotracheal tubes and managing mechanical ventilation, providing cardioversion and cardiopulmonary resuscitation, placing enteral tubes and hyperalimentation catheters, etc. Some procedures might be the function of personnel in the ICU while other procedural functions might be better provided by a specialized team (e.g., nutritional support team and hemodialysis team).

Administrative Skills. In each ICU, there should be a policy for assuring continuity of patient care and the availability of both appropriate logistic support and experienced personnel for each shift.

Teaching and Training Skills. A con-

tinuing teaching and training program is essential for each ICU to acquire and maintain skills and will be described in the following section.

Personnel Training

The general principle is that all involved personnel should be trained to do their jobs with emphasis on competence in ther area of critical care medicine. The medical director and nursing director of the ICU should coordinate and/or participate in the various teaching programs for ICU personnel.

Depending on the categories of patients admitted and level of care provided in a specific ICU, there may be one or more physicians of one or several disciplines working in the unit. ICU experience should be part of most house staff training programs. In addition, those who seek special competence in critical care medicine should participate in structured ICU training programs under the direction of established professionals in appropriate disciplines. The ICU director should be trained in a specialty of importance to the type of patients in the unit. Additional training in critical care medicine and/or another appropriate subspecialty is also desired.

Registered nurses must have significant postgraduate clinical experience prior to ICU training. Usually this should be at least one year in duration. This training and education should include a comprehensive orientation program, followed by on-the-job training with a preceptor. After significant ICU experience, each nurse should have the opportunity to participate in continuing education in critical care courses. If licensed practical nurses are used, adequate training must be provided that will be appropriate to the job performance required.

Depending upon the categories of patients, respiratory therapists should be integral members of the critical care team in order to provide respiratory care and related services. These personnel should have initial orientation followed by on-the-job training and, in addition, a regular lecture program on ICU patient problems and their respiratory care.

Other personnel categories that may be involved in the ICU but do not provide nursing interventions include paramedics, nurses aides, unit clerks, physiotherapists, laboratory technicians, biomedical electronics technicians, clinical engineers, pharmacists, dietitians, social workers, data managers, and clergy. They should all have access to appropriate teaching programs that will vary in content depending on the individual's profession and the goals and objectives of the ICU.

Organization of ICU Personnel

General Considerations. An ICU combines the capacity to provide needed care and technology with a potential to do great harm. Any organizational structure must, therefore, match technology with the correct blend of personnel to guarantee safe application of invasive monitoring and insure that generated data are correct, interpretation of derived data appropriate, and therapy safely employed. The organizational structure will vary depending on the overall mission of the hospital. There should be risk stratification for patients leading to distribution among units—matching the appropriate units with the necessity for intervention or monitoring.

Within each ICU, organization should be structured to insure proper care of the total patient.

Physician Staff. The ICU should be directed by a physician with demonstrated competence in the areas necessary for provision of critical care. These areas generally include a broad base in physiology, pharmacology, the continuum of disease, cardiopulmonary function, and the associated intervention skills. He or she must recognize the need for teamwork, specialty consultation, and have demonstrated administrative and leadership skills. Competence, availability, demonstrated interest and ability in promoting harmonious interaction of various members of the health care team rather than departmental affiliation should guide this selection.

Other physicians (ICU attending physicians), as credentialed by the hospital, may assume day-to-day unit and patient management responsibilities. All ICU physicians should demonstrate maintenance of clinical competence and skills through regular ICU practice. The role of the ICU physician may range, depending on unit and hospital type, from absolute control of patient management through coordinator to consultant. The medical director or designate should have final authority over admission and discharge of patients from the ICU.

The medical and nursing directors assume ultimate responsibility for the safety and appropriateness of services provided by the ICU. To this end, unstable clinical situations requiring minute-to-minute titration of therapy such as a delicate balance of multiorgan failure require that the ICU medical director or his/her designee direct patient care. This places even greater emphasis on the need to communicate regularly and frequently with primary physicians, family, and others involved in the current and future care of the patient.

Any hospital with a level II or III unit (Level I units have in-unit physicians—see question 4) should have immediately available, in hospital, 24 hours a day, a physician credentialed by the hospital as competent in life support and airway and ventilator management. Where house staff programs exist, trainees must occupy appropriately supervised roles in patient care that add to the quality and clarity of care.

Nursing Personnel. Nurses are the key element in critical care. They provide continuity while physicians and other health professionals come and go. The organizational structure must support rather than detract from this role. The same considerations in selecting a medical director apply to selection of the unit nursing director. Nursing management and nursing practice decisions should be made by the nursing director. The organizational structure should promote and require that nurses and physicians work together as colleagues at all levels—especially the medical director and nursing director. Clerical and administrative support are necessary to prevent distraction of the nurse from direct patient care functions. The nurse coor-

dinates the activity of all other allied health personnel at the bedside. Staffing patterns should be keyed to level of patient illness rather than a fixed nurse-to-patient ratio. Nursing staff capabilities must match the spectrum of patients cared for in the unit.

3. What special technology and therapeutic interventions should be routinely available for the most effective ICU function?

Effective intensive care units will have special technology, therapeutic capabilities, and personnel that are determined by the types of patients treated in the units. An ICU's technology and therapeutic capabilities must be based on an analysis of the reasons for which the unit was developed. This analysis should lead to clearly written guidelines for the care of patients in the ICU, defining clinical expertise needed, size of unit(s) needed, teaching versus nonteaching status, and commitment, if any, to research activities.

Incorporation of any technology and therapeutic capability must support the ultimate function of the ICU, which is to provide high quality care to patients who sustain or are at risk of developing potentially reversible severe illness. Thus, every ICU should have a well-trained team whose expertise matches the specific clinical problems that must be treated. This team must develop admission and continuing stay requirements, discharge criteria, and protocols that define the clinical scope of the ICU. In addition, policies for triage must be formally established and practiced.

An ICU, regardless of location, must have the following minimal technological capabilities:

A. Cardiopulmonary resuscitation

B. Airway management, including endotracheal intubation and assisted ventilation

C. Oxygen delivery systems and qualified respiratory therapists or registered nurses to deliver oxygen therapy

D. Continual electrocardiographic monitoring



Dr. Iverson and Nurse Joray check ICU patient.

E. Emergency temporary cardiac pacing

F. Access to rapid and comprehensive laboratory services including but not limited to arterial blood gas analysis, electrolyte determinations, hemograms, measurement of cardiac enzymes, renal function studies, microbiologic studies, fluoroscopy, and other radiologic studies

G. Access to nutritional support services to advise on both enteral and parenteral nutritional techniques

H. Titrated therapeutic interventions with infusion pumps

I. Based on determination of the ICU patient composition, technological capability must be available to support therapeutic interventions that are commonly accepted medical practice. For example, an ICU that manages shock syndromes needs hemodynamic monitoring capability techniques to allow for the rational diagnostic categorization and subsequent therapy of patients with shock syndromes

J. Portable life-support equipment for use in patient transport, both within the hospital and for transfer

Should the above minimal capabilities not be available, patient stabilization and referral procedures should be implemented. Furthermore, health care providers must be conscious of their obligation not to use investigational therapy or technology without defined protocols and appropriate informed patient consent.

4. How is a hospital's critical care delivery system best structured: one large

multispecialty unit or multiple small subspecialty intensive care units?

The nature of the hospital, the degree of subspecialty expertise available within the institution, the patient population being treated, and whether the institution is a referral center, a community hospital, or a teaching hospital, are all issues that must be taken into account to determine the best structure for its critical care delivery system.

In many hospitals a multispecialty ICU is most practical and allows better aggregation of ICU resources (technology, physicians, nurses, and allied health personnel). In other hospitals it is appropriate to combine one or more multispecialty units with one or more subspecialty units. Thus, the spectrum of ICUs today ranges from multispecialty to specific purpose ICUs.

In addition, there is diversity in the staffing and organizational structure in ICUs across institutions. These differences are identified below and grouped into levels representing current practices in hospitals. The levels are distinguished by differences in availability of certain human and technical resources and by the frequency of performance of certain interventions such as continuous ventilatory therapy. Suggested nurse-patient ratios are presented with some flexibility because the presence of other personnel such as respiratory therapists and temporal variations in patient mix may influence individual unit requirements. In many Level I and Level II ICUs, for example, continuous availability of on-site respiratory therapists will facilitate better patient care.

The organization and scope of aggregated ICU resources integrated with patients who have special needs should occur in one or more of the following levels:

Level I. This is a comprehensive and multisystem critical care unit. A physician-director or qualified designee is immediately available to the unit at all times. The nurse-patient ratio is 1:1 or greater depending on the severity of the patients' conditions. Measurement and derivation of all necessary invasive and noninvasive monitoring is accessible. There is a teaching and research obligation.

Level II. This unit is a multipurpose or a specific purpose unit. Examples include respiratory ICU, neuro ICU, coronary care unit, mixed medical/surgical unit, etc. A physician-director or qualified designee is available in the hospital. This unit can perform therapeutic interventions based on invasive and noninvasive monitoring and has a nurse-patient ratio of 1:1 or 1:2 or 1:3 depending on the severity of the patients' conditions.

Level III. This unit provides for limited use of invasive monitoring and therapeutic interventions such as assisted ventilation. A physician-director or his/her designee must be readily available. In-hospital coverage must be available from a physician who is credentialed by the hospital in life support and airway and ventilator management. Nurse-patient ratio is 1:2 or 1:3 or 1:4 depending on the severity of the patients' conditions.

Level IV. This is a specialty care unit but does not meet the definition of an ICU. This unit provides noninvasive monitoring for those patients who may have arrhythmias and the potential for complications. A unit director or designee is provided and will respond as needed. Arrhythmia monitoring and basic CPR skills are provided. The nurse-patient ratio is 1:4 or 1:5 depending on the severity of the patients' conditions. This ratio does not apply if the number of patients is less than four.

Larger hospitals might have several units (Level I or II and Level IV as intermediate care, for example). Transfer among units and to the general service adds additional risk; the level of care during transfer must not be less than that provided prior to initiation of transfer.

The ability to administer each level effectively becomes increasingly difficult if the unit is too large. Ordinarily, intensive care units should not be larger than 12 beds. If there is a need for more intensive care beds, development of additional ICUs must be considered, either general or specific purpose units. Where possible, institutions with more than one unit should place them in close proximity and adjacent to needed support services.

Admission criteria must be based on the sound judgment and clinical expertise of practicing physicians who feel there is a reasonable probability that admission will benefit the patient. Once in the ICU, the medical and nursing directors or their designees are responsible for evaluating admission and determining a patient's need to stay in the unit.

5. How has the development of intensive care units affected the traditional functions of a hospital?

The primary impact of the development of intensive care units in a hospital is that such units have enabled the hospital to provide more complete and higher quality services to the community. It has also enabled the hospital to more economically group its resources so that similar types of seriously ill patients can benefit equally.

The delivery of high quality service from ICUs has made it necessary for hospitals to evaluate and expand many of the ancillary areas that support these services. Specifically, hospitals that have developed such units have added more comprehensive laboratory, radiology, nutrition, biomedical engineering, respiratory therapy, psychological, and social work services, among others. Such expansions of support operations have added complexity to the day-to-day functions of institutions, resulting in the need for more refined organizational structures throughout hospitals. This in turn has necessitated the development of more controlled communication systems to insure availability of needed medical information and continuity of patient care services.

ICUs have also added prestige and enhanced the communities' good will toward the institutions in which they are based. This good will has often taken the form of financial and volunteer support as well as general moral support.

But while the ICUs have improved patient care, day-to-day operations and in-

stitutional prestige, they also have added pressures and stresses to hospital personnel both within and outside of the ICUs. For example, movement of patients into ICUs has had undesirable effects upon the general medical surgical units of the hospital.

First, there has been, in many hospitals, a reduction in appreciation for the continued care given and the possibilities for effective patient care on the general floors. The aura of urgency associated with critically ill patients tends to reinforce the perception of personnel from the general services that they are not as important in the care chain.

A more serious result of the formation of ICUs has been the removal from general services of the more acutely ill, thus reducing the experience of the general staff in caring for such patients.

Nursing care in the ICU has an emphasis opposite from such care on general services. The effectiveness of the ICU nurse is his/her knowledge of all the details necessary to care for one or two patients while the effectiveness of the general service nurse rests upon his or her ability to direct care delivery by others to numerous patients. This contradiction in nursing practice techniques may not be fully understood by the physicians who tend to equate the quantity of nursing care with quality. As the physician becomes more reluctant to use the general services for patients who are acutely ill, but not critically ill, the general services staff is deprived of the opportunity to gain and maintain skills which ultimately must be exercised in behalf of the post-ICU patient. These problems are recognized by hospitals and require ongoing programs to deal with them.

Beyond these issues the development of ICUs has motivated hospitals to better focus on their mission in the community and to work with other institutions to insure a more rational approach to patient care services. Further, the nature of ICU medicine has precipitated the need for hospitals to develop protocols and statements on ethical issues.

Advancing technology requires ICU personnel to become more expert in evaluation of medical devices and much more active in staff training to insure that relevant medical practices and capabilities are provided in the highest quality manner.

In general, ICUs have had many positive effects on hospitals but cause pressures and stresses which must be dealt with continuously.

6. What direction should critical care research follow?

Directions for Critical Care Research

The national cost of ICU care is in excess of 15% of hospital costs, and is between $10 and $20 billion annually. Although the cost of ICU-related research is high, the panel believes that substantial savings—greatly in excess of research costs—can be gained by better defining indications for ICU admission and the use of monitoring technology and interventions.

Intensive care related research readily falls into one of four groups:

1. Natural history, risk, and outcome research, directed at broad questions of utilization and efficacy
2. Research focused on specific ICU technology and applications, and therapeutic interventions
3. Human resource research
4. Disease entity research, ranging from basic studies of etiologic mechanisms to specific clinical therapeutic trials

1. Natural history, risk, and outcome research

The combination of life-threatening diseases, finite resources, invasive therapeutic and monitoring techniques, and high costs makes the need for adequate data on which to base decisions a high priority.

Such research is aimed at determining how ICUs can be used for the maximum benefit of the ICU population. This research should include procedures for "triaging" patients so that admission is not denied to patients who can most benefit from an ICU as well as excluding patients who have no reasonable chance to benefit. Research aimed at developing accurate outcome predictors as a function of initial presenting condition, diagnosis, and other ongoing prognostic variables should be encouraged.

Patients being monitored require sensitive predictors of potential complications, whereas patients being considered for intervention need specific predictors of success for the range of possible interventions.

2. ICU technology and applications and therapeutic interventions

A highly expensive component of intensive care is the monitoring technology. It is easy to assume a proportional relationship between quantity of information and quality of care, but this is not necessarily true. Indeed it has been suggested that, since there is a natural tendency to respond to abnormal data with a therapeutic maneuver, the net effect of monitoring a variable, which is not important in decision making, would be the sum total of the complications of the resulting therapy plus any direct complications from the mode of monitoring itself. Included in this negative effect would be the consequences of errors in the monitored data. The panel recommends encouraging research directed at *detecting the outcome gain to be derived for the variables commonly monitored in ICUs.* Similarly, the *efficacy of specific interventions* requires careful evaluation (see below). These two types of study (efficacy of monitoring and interventions) should include a careful assessment of the balance between gain and outcome, and iatrogenic complications.

For many of the disease states presently resulting in ICU admission the benefit is obvious (e.g., ventilation for apnea secondary to temporary neuromuscular paralysis). In such cases, the panel considers it inappropriate to conduct efficacy studies in the light of accumulated positive experience. The role of specific ICU protocols in influencing outcome is, for many diseases, not clear. There are wide variations among institutions regarding the interventions used for patients with the same disease. It is recommended that a series of protocol studies be carried out to determine

optional interventions for specific diagnoses. The term "protocol study" denotes a research plan where the study population, severity of disease, treatment intervention, and the objective measures of benefit are clearly stated. Ideally, such studies would include random allocation to treatment and control groups. Randomized studies may be difficult to carry out within a single unit or institution for many diagnoses because of the ethics and logistics of patient consent and the need to act quickly. Where this is the case, one may carry out a randomized study by enrolling more than one unit or institution to participate by randomizing units or institutions—not patients. Units or institutions would be randomized to a single treatment policy. They would treat a specified number of patients as dictated by the randomization allocation. After treating a specified number, a unit or institution would switch to the other treatment policy (in the case of studying two treatments). In this study plan, half the units or institutions would be first randomized to each treatment program and then crossed over. Adoption of such multicenter study plans will allow randomized prospective trials to be carried out which may lead to finding optimal intervention programs in intensive care units.

3. Human resource research

The complexity and intensity of care in the ICU requires the accumulation of information related to issues such as (a) the relationship between training levels and distribution of the various categories of staff, and patient care outcome, (b) consideration of factors leading to conflict and stress in staff, and (c) an evaluation of the efficacy of orientation and continuing education programs in the ICU.

4. Disease entity research

Numerous areas for research related to the various disease entities which result in ICU admission merit high priority. Among the more common causes of death are head injuries, sepsis, and multiple organ failure. While research in each of these areas has wider application than CCM, the panel recognizes that the teaching hospital ICU lends itself well to such clinical research. This should be encouraged as should more basic research at the level of mechanisms of the pathophysiology of brain damage following head injury, factors contributing to serious infections, and the mechanisms that lead to the adult respiratory distress syndrome.

In carrying out research in the ICU, certain difficulties must be recognized. In relation to natural history characterization, the existence of multiple subsets of any disease group and the very nonstandard way in which data are collected in the clinical setting pose a special problem. The relatively small number of patients in any one ICU and the multiple subsets suggest multicenter studies. The current nonstandard approach to data acquisition should be replaced with a uniform planned program of data collection which could be adopted by all ICUs. A minimum data set with common definitions would enable individual ICUs to evaluate the impact to their care over time and allow inter-ICU comparisons.

In conducting clinical studies in the ICU setting, special problems arise in obtaining informed consent. The unique dependency of the patient, the concern of the family, and the implications of the interventions under study all complicate an unemotional consideration of risks and benefits. This problem is compounded when the patient is unresponsive, and the net effect is to create a substantial difficulty in conducting research in this area. However, many of the questions to be addressed are of great importe, both because of the enormous costs involved and the life-threatening nature of the factors requiring study.



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A Practical Approach to Acid-Base Disorders

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Abstract

Disturbances of acid-base balance are common. Armed with a few laboratory tests and an understanding of simple acid-base physiology, the most complex acid-base problems can be solved. An algorithmic approach to common clinical disorders is presented.

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IMBALANCES OF acid-base metabolism are common clinical problems. With a few readily available biochemical measurements, and an understanding of the physiological principles of acid-base homeostasis, physicians can develop a rational approach to these syndromes. The measurement of serum electrolytes, glucose, ketones and creatinine, along with a routine blood gas determination, blood urea nitrogen measurement and a urinalysis provide the clinician sufficient information to elucidate the most complex disorders.

Clinically, acid-base disorders are divided into: (1) metabolic derangements, which are primarily disturbances of the serum bicarbonate concentration and (2) respiratory disorders, which primarily alter the pC02. When these processes occur as a single problem, even when compensation is present, they are called simple disorders. When the processes occur simultaneously, they are referred to as mixed acid-base disorders.

Acidosis and alkalosis are physiologic processes which cause acid or alkali to accumulate in the body. These processes tend to alter blood pH, but when the perturbations are mild or when compensation occurs, the pH may remain within the normal range. Similarly, when acidosis and alkalosis are present simultaneously as a mixed acid-base disorder the pH may remain normal. If the pH is below the limit of normal, acidemia is present and the process of acidosis must be occurring. Likewise, if the pH is greater than normal, alkalemia is present, and the process of alkalosis is occurring.

The relationship between the pC02, pH, and the serum bicarbonate concentrations is stated by the Henderson-Hasselbalch equation. This expression, with its reliance on logarithms, is too cumbersome to be useful clinically. Kassirer and Bleich have rearranged this equation as shown below:

$$[H+] = \frac{24 \times pC02}{[HC0_3^-]}$$

where $[H+]$ is the hydrogen ion concentration of the blood in nmol/L and $[HC0_3^-]$ is the serum bicarbonate concentration.

Kassirer and Bleich further recogized that the hydrogen ion concentration could be rapidly calculated from the measured blood pH. They noted that in the pH range of 7.10 to 7.50, each change of 1 nmol/L in the hydrogen ion concentration from the normal 40 nmol/L coincides with the inverse change of 0.01 pH units from 7.40. Stated another way, the hydrogen ion concentration can be calculated by subtracting the tenths and hundreths digits of the pH measurement from 80.

Thus, the hydrogen ion concentration of the blood can be computed from the pH as follows:

pH 7.38 = 80 − 38 = 42 nmol/L [H+]
pH 7.39 = 80 − 39 = 41 nmol/L [H+]
pH 7.40 = 80 − 40 = 40 nmol/L [H+]
pH 7.41 = 80 − 41 = 39 nmol/L [H+]
pH 7.42 = 80 − 42 = 38 nmol/L [H+]

This linear relationship between the pH and the [H+] breaks down when the pH is below 7.15 or greater than approximately 7.55. Fortunately, most clinical acid-base disturbances occur within this range.

Like the Henderson-Hasselbalch equation, the Kassirer and Bleich modification describes the relationship of these substances in the blood. Regardless of the physiologic events altering the patient's acid-base equilibrium, this relationship must be satisfied. From this equation the clinician can determine whether laboratory data, upon which he

may base crucial diagnostic and therapeutic judgments, is correct. Furthermore, this relationship serves to remind us that the acidity of the blood is determined by the relative availability of acid and alkali, and that serum concentrations of [HC0$_3^-$] and pC02 reflect that availability. Subjecting the laboratory measurements to the rigorous scrutiny of this useful equation is the first step in the algorithmic approach to acid-base disorders.

The clinician must next decide whether the acid-base perturbation is primarily a problem of acidosis or alkalosis. This is accomplished by observing the pH. If acidemia is present, at least one primary process must be acidosis. If alkalemia is present, alkalosis is occurring. To maintain acid-base homeostasis, a primary acidosis engenders a compensatory alkalosis. Similarly, a primary alkalosis will generally be compensated by a secondary acidosis.

Primary metabolic disturbances are corrected by the opposite respiratory process; and primary respiratory disorders are compensated by the opposite metabolic process. Thus, for example, to maintain a constant pH, a primary metabolic acidosis will be compensated by a secondary respiratory metabolic process. Thus, for example, to maintain a constant pH, a primary metabolic acidosis will be compensated by a secondary respiratory alkalosis. Overcompensation never occurs. Consequently, even when compensation is complete, the pH tends to remain in the direction of the primary disorder.

Acidosis

As shown in *Figure 1*, if the pH is less than 7.40, that is, the [H+] is greater than 40 nmol/L, the clinician must next determine whether the acidosis is of metabolic or respiratory origin. The primary disturbance in metabolic acidosis is a decrease in the serum [HC0$_3^-$], whereas the primary change in respiratory acidosis is an increase in pC02. Primary respiratory acidosis is always a result of underventilation. Some potential causes are listed in *Figure 1*.

When acidosis is present, and the serum [HC0$_3^-$] is decreased, the clinician must next determine if there is an increase in the serum concentration of unmeasured anions, that is, he must decide if an abnormally increased anion gap is present. The concentration of these anions is determined by subtracting the sum of the serum bicarbonate and chloride concentrations from the serum sodium concentration as shown below:

$$\text{Anion Gap} = [Na^+] - (HC0_3^- + [Cl^-])$$

If the anion gap is greater than 15, then the metabolic acidosis is characterized by the excessive production of acid. Some examples are listed in *Figure 1*. The unmeasured anions may represent the metabolic products of ingested toxins or the accumulation of endogenous organic acids. When metabolic acidosis is caused by a loss of bicarbonate, a failure of excretion of normal acid loads, or administration of chloride containing acids, the anion gap is usually less than 15. In such a case, it is useful to further characterize the acidosis by using the serum potassium concentration.

As shown in *Figure 1*, metabolic acidosis with a normal anion gap and a low serum potassium concentration is usually the result of an abnormal loss of bicarbonate; whereas, if the serum potassium concentration is normal or elevated, the acidosis may be due to a failure of excretion of normal acid loads or the administration of chloride containing acids.

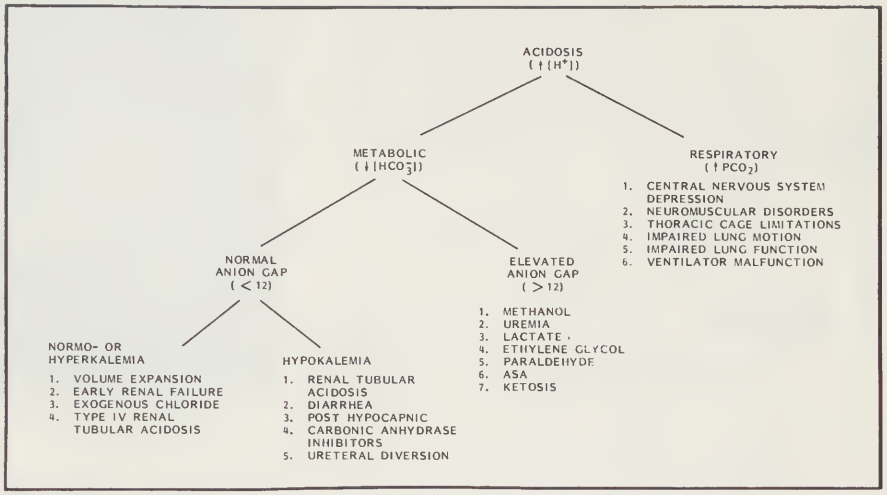


FIGURE 1: Acidosis.

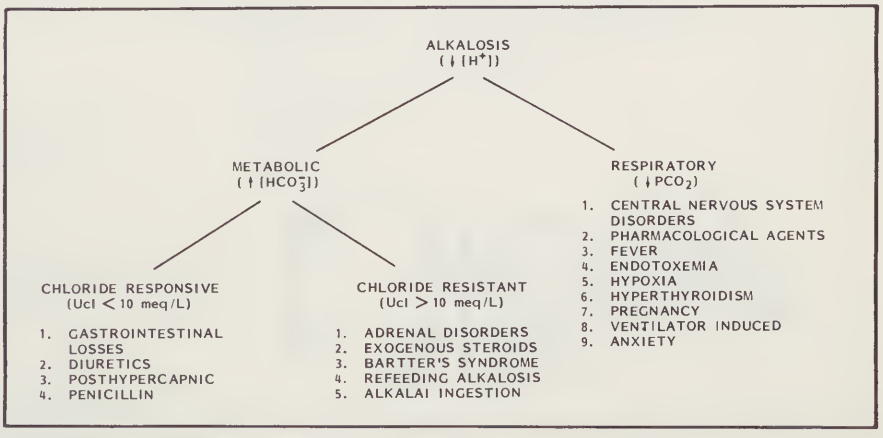


FIGURE 2: Alkalosis.

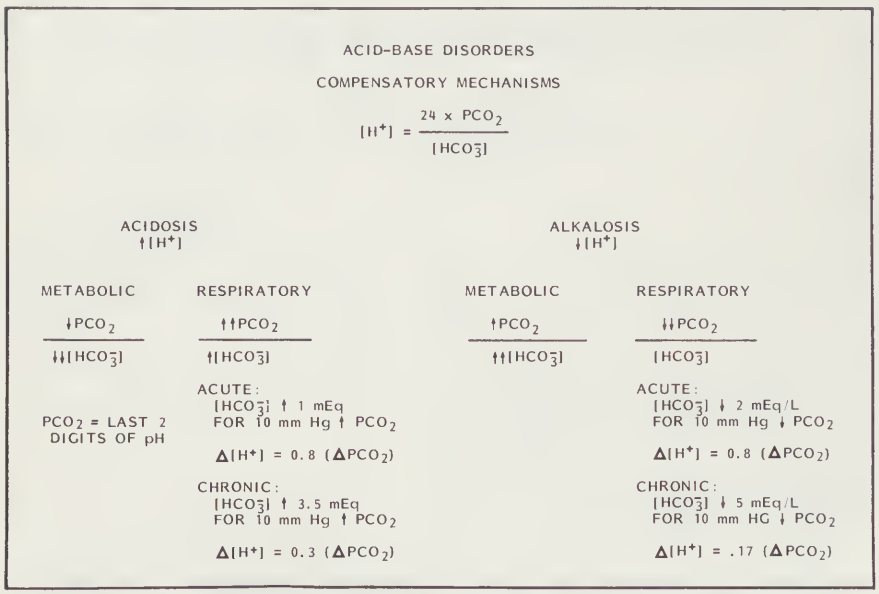


FIGURE 3: Compensatory Mechanism. (The delta symbol is used to mean "change.")

Alkalosis

As shown in *Figure 2*, if the pH is greater than 7.4, that is, the [H+] is less than 40 nmol/L, the clinician must determine if the alkalosis is of metabolic or respiratory origin. The primary disturbance in metabolic alkalosis is an increase in the serum [$HC0_3^-$]. The primary change in respiratory alkalosis is always a result of overventilation. Some potential causes are listed in *Figure 2*.

Metabolic alkalosis can usefully be characterized by the amount of chloride excreted in the urine. When the urinary chloride concentration is less than 10 to 20 meq/L, the alkalosis is usually the result of acid loss, and will respond to the administration of fluids containing chloride. Chloride resistant alkaloses may be the result of excess circulating corticosteroids or the ingestion of large quantities of exogenous alkali.

Compensation for Primary Disorders

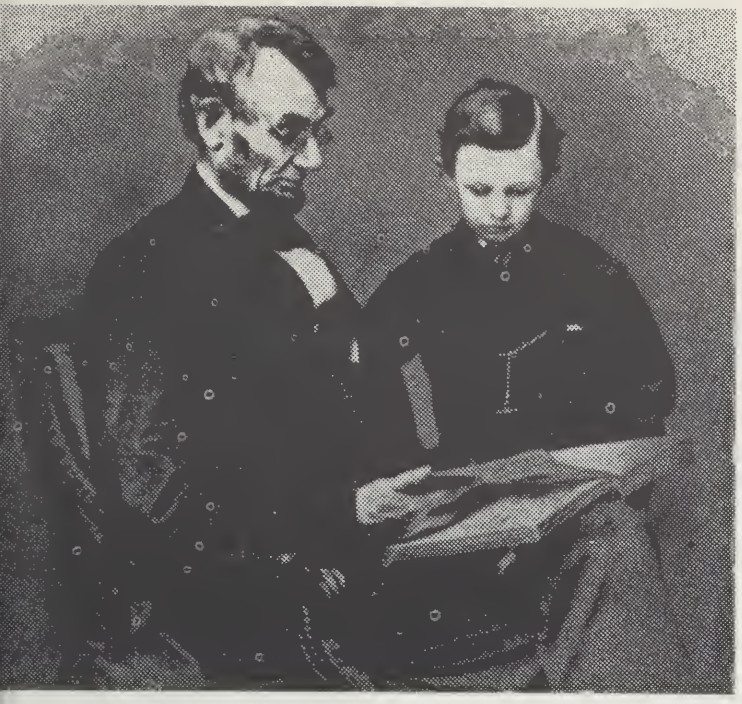
The changes in blood pH resulting from metabolic and respiratory perturbations are dictated by the ratio of the pC02 and the [$HC0_3^-$], as can be seen from the Kassirer and Bleich equation. To maintain a stable pH, a primary change in the serum [$HC0_3^-$] concentration initiates a compensatory change in the pC02. Thus, the appropriate compensation for a primary change of one of these measurements is a change of the other substance in the same direction.

For example, the primary decrease of the serum [$HC0_3^-$] concentration seen with metabolic acidosis initiates an offsetting decrease in pC02. A table of these mechanisms is illustrated in *Figure 3*, along with guidelines for the magnitude of the secondary changes. Metabolic compensation for respiratory disorders does not occur immediately. In *Figure 3*, guidelines are provided for both acute and chronic respiratory disturbances. When perturbations of the pC02 and serum [$HC0_3^-$] fall outside these approximations, two primary disorders of acid-base balances are likely concurrent.

Knowledge of the extent of compensation that ought to occur for any given primary perturbation is central to recognizing mixed disorders. The recognition of these complex disorders is predicated on an understanding of the pathophysiologic effects of simple disturbances of acid-base homeostasis.

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Paraganglioma of the Urinary Bladder

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Abstract

A case of paraganglioma of the urinary bladder is reported. This tumor can cause a very wide spectrum of clinical severity. Headache, fainting, and hypertension initiated by voiding are the most prominent clinical symptoms. The present case was asymptomatic, and the tumor was an incidental finding discovered during investigation of ureteral calculus.

PARAGANGLIOMA involving the urinary bladder is rare, and accounts for less than 0.6% of all vesical tumors.[1] However, its classic symptoms—sharp headaches, hypertension, and fainting immediately after voiding—often present a diagnostic puzzle, especially since the entity is not widely known.[2, 3] We wish to describe an additional case and emphasize that the disease can cause a very wide spectrum of clinical severity. In this case, paraganglioma was an incidental finding discovered during investigation of ureteral calculus.

Case Report

This 50-year-old Caucasian man presented with a short history of right flank colic and fever. Intravenous pyelogram revealed partial obstruction of the right ureter at the uretero-vesicular junction. He was normotensive, even post-micturition. A cystoscopy with stone manipulation and removal was successfully accomplished, and a midline polypoid lesion, 8 mm in diameter, was incidentally found in the urinary bladder. The excisional biopsy of the lesion revealed a well circumscribed tumor composed of polyhedral cells with abundant, finely granular, eosinophilic cytoplasm, grouped in small nests, The nuclei were round to oval, often vesicular, and one or two eosinophilic nucleoli were present. No bizarre atypical cells or mitoses were noted (*Fig. 1*). Electron microscopic study demonstrated numerous membrane-bounded neurosecretory granules (*Fig. 2*).

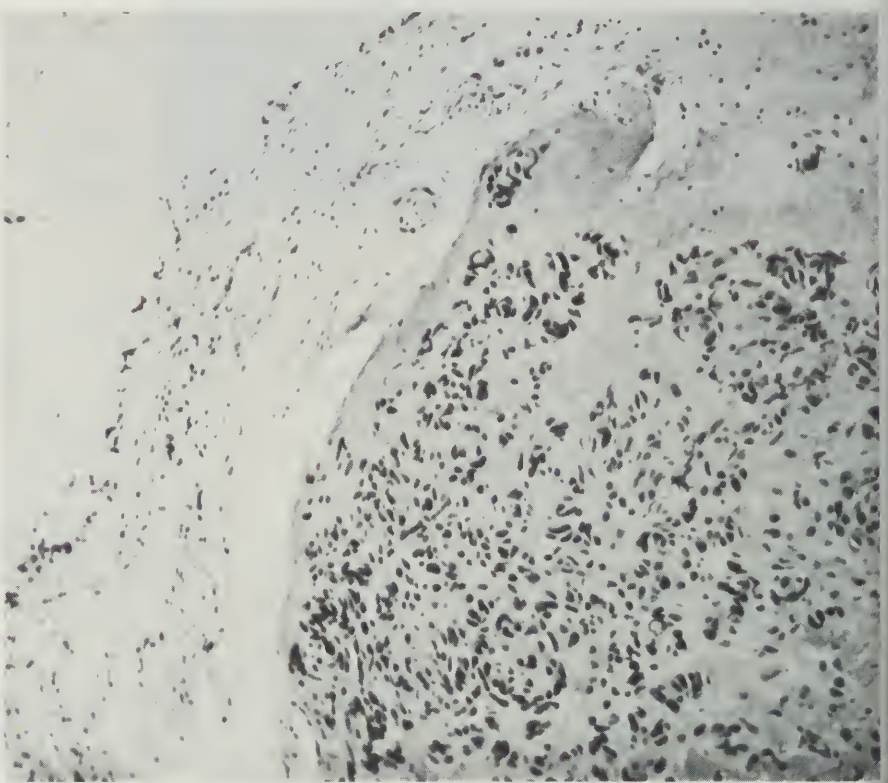


FIGURE 1: A well circumscribed tumor composed of polyhedral cells in epithelioid appearance, grouped in small nests (H&E, X150).

Discussion

The accepted concept is that the tumor originates from persistent nests of paraganglionic cells related to the autonomic nerves of the bladder.[4] A paraganglioma of the urinary bladder may produce a peculiar symptom complex owing to its location. A combination of episodes of hypertension during or immediately after micturition associated with hematuria is almost pathognomonic.

The absence of hypertension and micturitional attacks clouded the diagnosis

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in this case. Determining the urine and serum catecholamines was not justified by the symptoms before operation. Many of these patients do not have abnormal chemical determinations. However, the percentage of patients without functioning tumors is difficult to determine from the literature. According to Leestma and Price,[1] fewer than 7% of these cases have a malignant course.

As with other lesions of this type, malignant potential cannot be identified with certainty microscopically. The treatment of choice is local resection with wide margins. Under some circumstances, more radical surgery is necessary.

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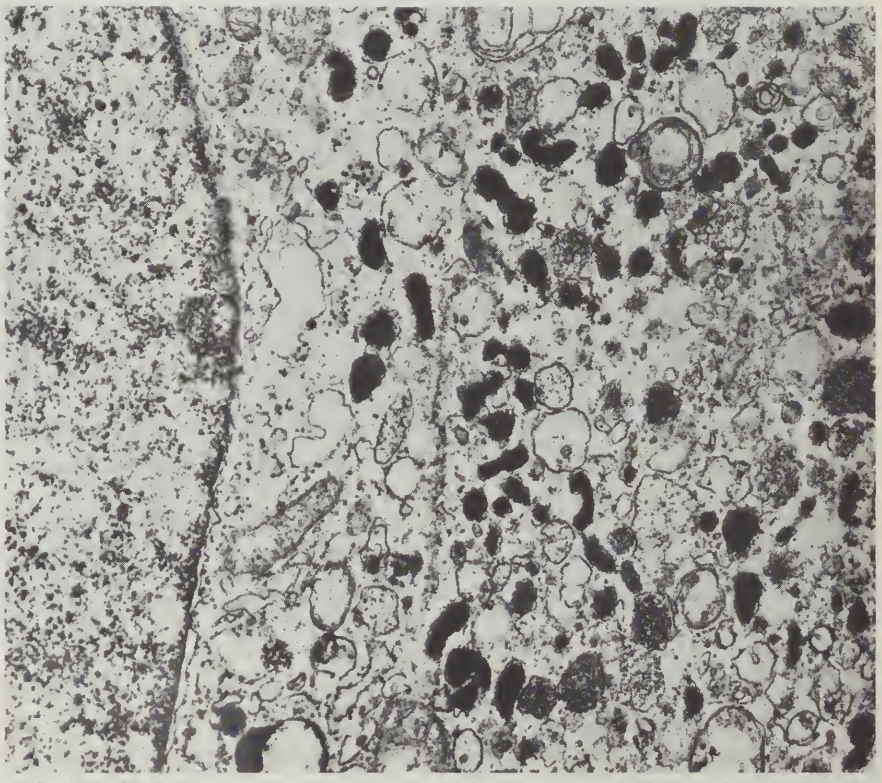


FIGURE 2: Electron microphotograph of the tumor cell showing numerous membrane-bounded neurosecretory granules (X33, 250).

Primary Adenocarcinoma of the Duodenum Arising from Villous Adenoma

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ROBERT J. MILOS, M.D.*
Gary

Abstract

Primary adenocarcinoma of the duodenum is very rare and constitutes less than 1% of all malignant tumors of the intestines. Two cases of primary adenocarcinoma arising from villous adenoma are reported and the literature is briefly reviewed. Frozen section examination during surgery of any polypoid lesion of the duodenum should be performed and a partial pancreaticoduodenectomy is recommended if evidence of adenocarcinoma is present.

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PRIMARY ADENOCARCINOMA of the duodenum is exceedingly rare, having a frequency of 0.035% in several autopsy series. However, it has been reported that neoplasms of the duodenum constitute 0.3% of all malignant tumors of the intestines and 30-45% of the malignant neoplasms of the small intestine.[1] Villous tumors are an important variety of the neoplasms encountered in the duodenum, and malignant ones comprise 27% of this group. Thus, they are a type of tumor which, when present in the duodenum, must be recognized as a potential source of primary malignancy in this segment of the small intestine.

Two cases of villous tumors of the duodenum are described with a brief review of the literature.

Case #1

A 55-year-old white woman was admitted to St. Mary Medical Center with a 20-pound weight loss, nausea, vomiting, and epigastric pain during a period of four months. Her hemoglobin concentration was 10.5 gm/dl. No jaundice was present. X-ray examination revealed a polypoid, obstructive lesion in the third portion of the duodenum (*Fig. 1*). A partial pancreaticoduodenectomy was performed. Grossly, the tumor was sessile and polypoid and measured 3.6 x 3.0 x 1.5 cm. (*Fig. 2*). Microscopically, it was a well differentiated adenocarcinoma arising in a villous adenoma (*Fig. 3*).

The tumor involved the entire thickness of the muscular wall without any evidence of metastasis in the periduodenal lymph nodes. The patient developed peritonitis secondary to partial dehiscence of the gastroduodenal anastomosis and died one week after operation. At autopsy, no evidence of residual tumor or metastasis was present.

Case #2

A 33-year-old white man was admitted because of epigastric discomfort for eight months and a recent onset of jaundice. A progressive weight loss of 20 pounds over two months duration was also noted. Laboratory results indicated an obstructive jaundice (total bilirubin of 14.2 mg/100 ml with a direct bilirubin fraction of 11.6 mg/100 ml and elevated alkaline phosphatase of 451 mU/ml). X-ray examination revealed an extrinsic mass at the junction of the second and third portions of the duodenum. Intravenous I-131 Rose-Bengal demonstrated a lack of biliary secretion into the duodenum.

A duodenectomy with partial pancreatectomy was performed after a frozen section diagnosis was made of adenocarcinoma of the ampulla of Vater. Grossly, the tumor was nodular and polypoid and was located at the orifice of the ampulla of Vater. The tumor measured 2.0 x 1.5 x 1.5 cm. Microscopically, the tumor was a well differentiated papillary adenocarcinoma arising in a villous adenoma with focal invasion of the muscular layer of the intestinal wall (*Fig. 4*). There was no evidence of metastasis in the periduodenal and peripancreatic lymph nodes. The patient was in good health 10 months after operation. Further follow-up was not available.

Discussion

Benign tumors of the duodenum have been reported to comprise from 15% to 42% of all benign tumors of the small bowel. Leiomyoma, adenomatous polyps, Brunner gland adenoma, ectopic pancreatic tumors, angiomas, neurofibromas, hamartomas, lipomas, cholangiomas, and carcinoids have been reported. Adenocarcinoma is the most



FIGURE 1: X-ray of the duodenum (Case 1) showing a polypoid mass (arrow) obstructing the third portion of the duodenum.

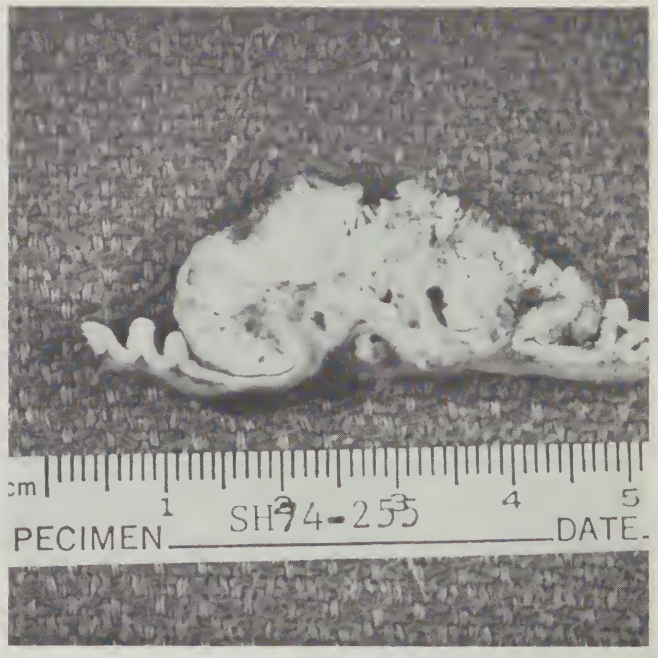


FIGURE 2: Cross section of the tumor (Case 1) showing papillary adenocarcinoma arising from a villous adenoma and involving the submucosa.

common duodenal malignancy and the most common small bowel malignancy.[2] Leiomyosarcoma and lymphosarcoma are the next most common and together they comprise only 10% of malignancies in the duodenum. As one proceeds from the duodenum to the ileum, the incidence of sarcoma increases, and the incidence of adenocarcinoma decreases.

Malignant change is the primary concern in dealing with villous tumors. In one series of duodenal villous tumors, 35% were malignant, of which 14% were *in situ* tumors.[3] The villous tumors in the duodenum have approximately the same incidence of malignant change as villous adenomas in other sites of the intestine. Hasleton, *et al*[4] in a recent immunoperoxidase study using carcinoembryonic antigen (CEA) antiserum showed positivity in these tumors even in high dilution (1 in 8,000). Also, this stain would show functional malignancy before histological evidence of malignancy is found.

Malignant tumors of the duodenum are said to be equally distributed throughout the duodenum's length. However, in a recent study, 50% of the tumors with malignant change were in the second portion of the duodenum,[3] making local excision or resection more difficult. Villous tumors are not frequently multiple. Multiplicity occurs more frequently in the stomach than in the small bowel.[5]

The age of patients with villous tumors of the duodenum ranges from 18 to 76 years. The average age is 56 years, which is younger than the average age of 73 years of villous tumor of the colon.

The clinical manifestations of small bowel tumors usually have vague and nonspecific symptoms in the early stages and often are considered neurotic. These symptoms are often those of early partial bowel obstruction and consist of mild cramping abdominal pain and intermittent bloating and occasionally jaundice. Villous tumors have a propensity to bleed. The average duration of symptoms before diagnosis in one series of duodenal tumors was 11 months. In all cases of adenocarcinoma of the duodenum, the stools were positive for occult blood. However, there was no clear relationship between symptoms and invasiveness of the tumor.

Since Waters' description of the first preoperative radiologic diagnosis of this entity in 1930, the "soap bubble" appearance is said to be a characteristic feature. With the use of duodenography, the diagnosis of these tumors can be made preoperatively in most instances.[6]

The treatment recommended for villous tumors of the duodenum has varied from simple excision to radical pancreatoduodenectomy for both benign and malignant lesions.[7] Most authors believe that local resection or even local mucosal excision is acceptable treatment for *in situ* carcinomas. However, if invasive carcinoma is seen in a villous tumor in any portion of the duodenum, pancreatoduodenectomy is indicated. The role of chemotherapy with fluorouracil and radiation therapy seems to be poor.[1]

The mean duration of survival in adenocarcinoma is six months.[1] Bypass

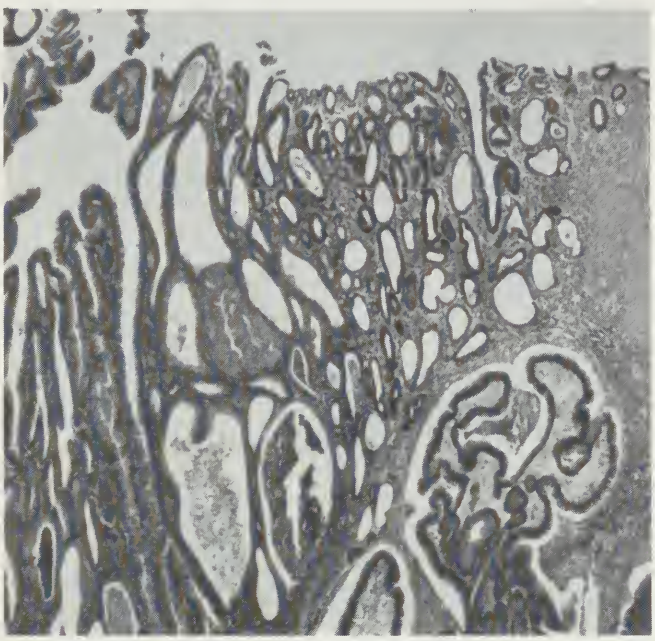


FIGURE 3: Photomicrograph of Case 1 showing well differentiated adenocarcinoma in a villous adenoma (X60).

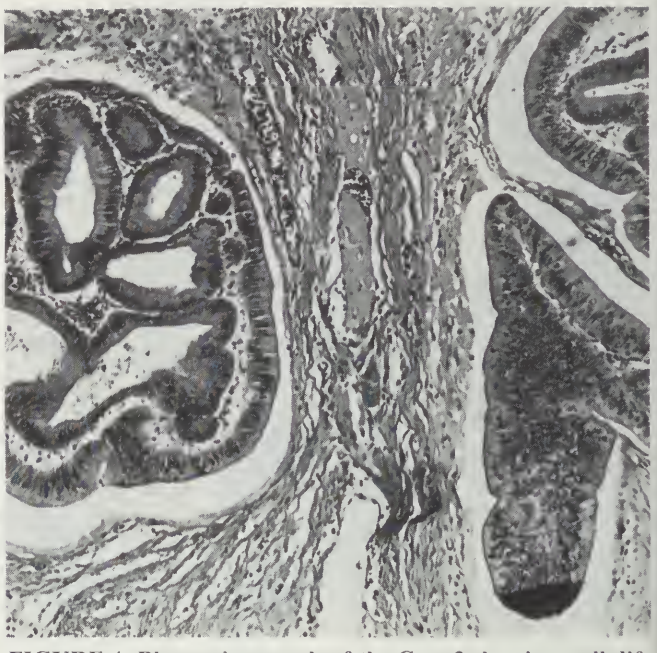


FIGURE 4: Photomicrograph of the Case 2 showing well differentiated adenocarcinoma invading the intestinal wall (X100).

by gastrojejunostomy does not increase the survival rate significantly except for palliation. The five-year survival rate has varied in different series; Cortese and Cornell[8] reported 44%.

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CME QUIZ
Rheumatoid Arthritis . . .

CONTINUED FROM PAGES 747-752

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1. Rheumatoid arthritis occurs in what percentage of the population?
   a. less than 5%
   b. 5-10%
   c. 10-20%
   d. 50%
2. Arthritis in adults with rheumatoid arthritis is usually:
   a. monoarticular
   b. pauciarticular
   c. asymmetric
   d. polyarticular and symmetric
3. A boutonniere deformity:
   a. occurs in the wrist
   b. occurs in the knees
   c. is flexion of a PIP joint
   d. is hyperextension of a PIP joint
4. Carpal tunnel syndrome is:
   a. a tendon rupture
   b. a fracture
   c. median nerve compression
   d. a flexion contracture of the wrist
5. Which of the following is *not* true?
   a. synovial fluid in rheumatoid arthritis usually is inflammatory
   b. synovial fluid is rare in knees of patients with rheumatoid arthritis
   c. synovial fluid in rheumatoid arthritis usually has a low glucose
   d. synovial fluid in rheumatoid arthritis usually has a poor mucin clot
6. Felty's syndrome does not include:
   a. neutropenia
   b. xerostomia
   c. splenomegaly
   d. arthritis
7. Pleural effusions in rheumatoid arthritis are:
   a. rare
   b. always bloody
   c. frequently asymptomatic
   d. usually high in glucose
8. Which drug is not a remittive agent in rheumatoid arthritis?
   a. aspirin
   b. gold
   c. hydroxychloroquine
   d. penicillamine
9. Corticosteroids
   a. should be used in all patients with rheumatoid arthritis
   b. are very important in the treatment of rheumatoid arthritis
   c. have a very limited role in rheumatoid arthritis
   d. should never be used in rheumatoid arthritis
10. Physical therapy
   a. should never be used in rheumatoid arthritis
   b. is very important in rheumatoid arthritis management
   c. should be used only when rheumatoid arthritis is very active
   d. does not help patients with rheumatoid arthritis

OCTOBER CME QUIZ Answers

Following are the answers to the CME quiz that appeared in the October 1983 issue of THE JOURNAL: "Amniocentesis . . . " by Lillie Mae Padilla, M.D.

1. d	6. a
2. a	7. c
3. d	8. c
4. a	9. c
5. b	10. c

Answer sheet for Quiz: (Rheumatoid Arthritis . . .)

1. a b c d	**6. a b c d**
2. a b c d	**7. a b c d**
3. a b c d	**8. a b c d**
4. a b c d	**9. a b c d**
5. a b c d	**10. a b c d**

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

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To be eligible for this month's quiz, send your completed, signed application before Dec. 10, 1983 to the address appearing at the top of this page.

EDITORIALS

Fast Food Isn't Junk Food

No need to feel guilty while eating at a fast-food restaurant any more—at least not nutritionally guilty.

Copies of a full report on the subject are available from the American Council on Science and Health.

"Wisely selected fast food meals can provide a significant portion of the nutrients people need each day, and they don't have to be excessively high in calories," the report says.

The council points out, however, that there are drawbacks such as limited variety of food, and the lack of low-sodium items on the menus.

The advice is to eat elsewhere frequently to get the essential dietary groups not available at the fast-food emporium. As far as the low-sodium goes, this is something that must be considered by the customer wherever he or she eats.

Fast food meals provide ample amounts of protein, and moderate to large quantities of vitamins and minerals. So-called fast food is actually fast-service food—the food is just about the same as it is elsewhere, only the delivery is fast.

"The key to wise use of fast food—and all foods—is selection in accordance with sound nutrition principles," according to the report.

Copies of the report, "Fast Food and the American Diet," sell for $2. each. Special prices are quoted for quantities in excess of 10. A single complimentary copy can be obtained by sending a self-addressed, stamped (37¢) business size (#10) envelope to the council at 47 Maple St., Summit, N.J. 07901.



"I'm not going to tell you how serious it is. I would only make you feel worse."

'Stop Lying'

Looking Back

On a recent Washington visitation, I was in several Representatives' offices in the Longworth House Office Building. This magnificent building with its interior of beautiful white marble is a strange admixture of an office building, a home, a mausoleum, a monument. The halls have 16-foot ceilings, making them truly cavernous. Longworth has beautiful wood doors and wood fixtures interiorly. The total building presents as both ancient and modern, both cold and hospitable.

During a break, I went to the basement in search of a soft drink machine. (A 16-ounce Tab for 40¢!) Unlike the upper floors, the basement was dull, dreary and dirty: no white marble; no high ceilings.

There is an abundance of graffiti in the basement. "No ice" had been changed to "No dice" and "No lice." Curiously, the "No truck" sign was unblemished. Upstairs, the beautiful white marble halls are unmarked, but a restroom and an elevator showed the usual graffiti obscenities. Additionally, I noticed an unusual graffiti message scratched in the brass of a floor light sign high above an elevator door:

"Stop lying."

I wondered to whom the single admonition was addressed—whether Congress or its petitioners, whether Executive, Legislative, or Judicial branch, or more simply to lovers or families.

The simple command was also an inference of guilt, unlike the positively stated Commandment, "Thou Shalt Not Bear False Witness. . . ." Perhaps a more knowledgeable God than He who gave us the well known Commandment had inscribed the message here?

Inscribed in brass, the command left no room for maneuvering in degree—white lies were not mentioned as being more pardonable than black lies.

Who had inscribed the elevator? Was it a frustrated Congressman addressing his Constituency? Was it a constituent addressing his Congress and his government? What anguish was behind this simple inscription? Had a simple fool idled away his vacant time by inscribing the first thing that came into his mind?

Or was it a profound message innocently inscribed in this unsuspecting place—a message from all of us to everyone?—**Alvin J. Haley, M.D., Indianapolis**

Eye Safety in Racquet Sports

Guest Editorial

With the tremendous increase in popularity of racquet sports in the last decade, there has been an increasing awareness of associated ocular injuries. Along with gathering data on the incidence and types of injuries, interested physicians have been evaluating devices for protection as well as seeking adoption of rules to encourage use of protective devices.

The eye health and services agency, Indiana Society to Prevent Blindness, works with physicians in these areas, and has recently produced a television spot on the subject of racquetball eye safety. The society will distribute information on Standard Specification F803 for Eye Protection recently issued by ASTM.

The incidence of ocular injury is much



"Don't call that mechanic. I performed an expensive operation on him last month."

greater in those sports in which opponents share the same playing area, i.e., racquetball and squash, as opposed to tennis and badminton where opponents face each other and the area is separated by a net. The reason for the higher rate of injury in racquetball and squash is partially due to the possibility of being hit by the racquet as well as by the ball.

The most common ocular injuries are eyelid hemorrhages and lacerations, followed by corneal abrasions and intraocular hemorrhage (hyphemia, vitreous and retinal hemorrhage). The most common surgical procedures performed for racquet sports injuries are repair of lid lacerations, hyphemia washout and retinal detachment repair.

The most important aspect of ocular injuries in racquet sports is prevention by use of eyeguards. Research using propulsion devices and mannequins has led the Canadian Standards Association and the ASTM to recommend polycarbonate frames with polycarbonate lenses as the most satisfactory eye protection. Frames containing no lenses are unsatisfactory because a squash ball or racquetball can compress sufficiently to enter the open frame and damage the eye. Glass or "street-wear" plastic lenses will shatter when struck by a ball traveling in excess of 100 m.p.h. and are considered inadequate protection. A list of sturdy frames with polycarbonate lenses follows: Bausch & Lomb Action Eyes*, Criss Optical American All Sport*, Big Eye, Carrera, Ektelon Sports Spec, Foster Grant, Peepers, Pro-tec Gargoyle, Imperial Optical Safe-T-Eyeguard. (*available in both Rx and Plano)

Another effort of those interested in prevention of ocular injuries in racquet sports has been to encourage participants to use protective devices. Posters reminding players to wear goggles have been placed in racquet clubs. Club rules to make eye protection mandatory for children and optional, but recommended, for adults have been proposed. Lastly, rules to make protective devices mandatory in tournament play have been sought, and passed in some areas.

We encourage physicians to advise their patients who participate in racquet sports to purchase and to wear adequate eye protectors.—**Robert W. Dyar, M.D., Indiana Society to Prevent Blindness, Indianapolis**

Patient Has Right to Choose Surgeon

Court Action

A patient who consented to surgery by a specific surgeon and was operated on by another surgeon could sue the surgeon who did not operate for malpractice and the one who did operate for battery, the New Jersey Supreme Court ruled.

The patient consulted a urologist, and he recommended surgery for removal of kidney stones. Another physician from the same medical group as the urologist later met with the patient and explained that two members of the group would be present during the operation. The patient signed a consent form that named the urologist as the operating surgeon and authorized him to perform the operation with the aid of unnamed assistants.

The operation was performed by a third member of the group, and the urologist was not present. The patient first learned of the identities of the operating surgeons when he was readmitted to the hospital because of postoperative complications.

In a suit for malpractice against all three physicians, the patient alleged, among other things, lack of informed consent because his consent was based on his belief that the urologist would operate. The jury decided in favor of the physicians, and an appellate court affirmed.

The Supreme Court said that if an operation is properly performed, even though it is performed by a surgeon operating without the patient's consent, a jury could find that substitution of surgeons did not cause a compensable injury but could award damages for mental anguish resulting from the belated knowledge of the substitution. The court said that any nonconsensual touching is a battery. Further, even more private than the decision as to who may touch one's body is the decision as to who may cut it open and invade it with hands and instruments. In the absence of an emergency, the court said, a surgeon who operates without a patient's consent engages in unauthorized touching and thus commits a battery.

The court said that the action against the urologist stemmed from the alleged breach of his agreement to operate and the fiduciary duty owed to his patient. A patient has a right to know who will operate, and a consent form should reflect the patient's decision, the court said. Failure to perform an operation after soliciting a patient's consent is a deviation from standard medical care. Whether the right surgeon operates on the wrong part or the wrong surgeon operates on the right part of the patient, it is malpractice, the court said, and in each instance the surgeon has breached his duty to care for the patient.

If damages result from deviation from standard medical care, a patient has a cause of action for malpractice. Reversing the lower courts' judgment, the court sent the case back for further proceedings. During these proceedings, the court stated that the possible bias of a member of the malpractice panel and the credibility of a witness before the panel was relevant.—*Perna v. Pirozzi*, 457 A.2d 431 (N.J. Sup. Ct., March 2, 1983)

Courtesy of The Citation, Aug. 1, 1983



ISMA Welcomes Its 141st President

George T. Lukemeyer, M.D.

President
Indiana State Medical Association
1983-1984

Dr. George T. Lukemeyer, Indianapolis, accepted the presidency of the Indiana State Medical Association Oct. 17, during the final session of the House of Delegates at the 134th annual convention of the ISMA.

Dr. Lukemeyer, an ISMA alternate delegate to the American Medical Association, succeeded Dr. John A. Knote, Lafayette, as president of the Association.

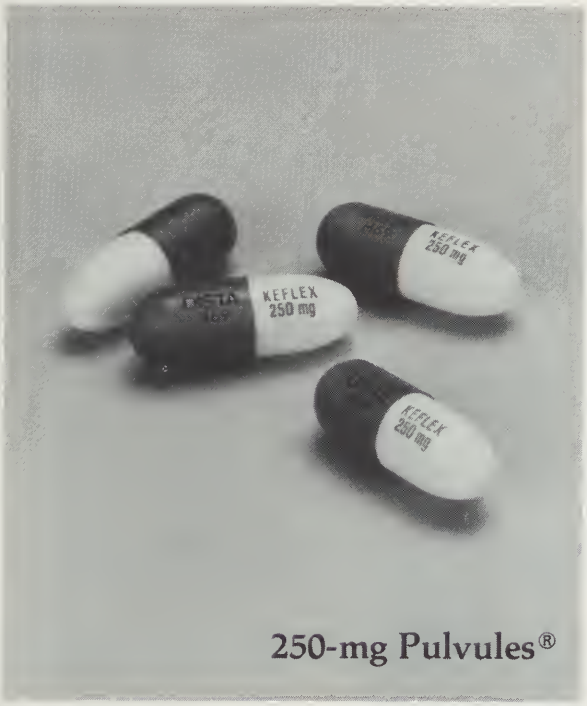
A specialist in internal medicine, Dr. Lukemeyer serves as executive associate dean of Indiana University School of Medicine. He is primarily responsible for the academic, professional and administrative operation of the University Hospitals. Dr. Lukemeyer, who has served on the medical school admissions committee since 1960, has been responsible for directing the Office of Medical School Admissions since 1969. Medical education has been of vital concern to Dr. Lukemeyer since 1954 when he began his career as an instructor in medicine at Indiana University School of Medicine.

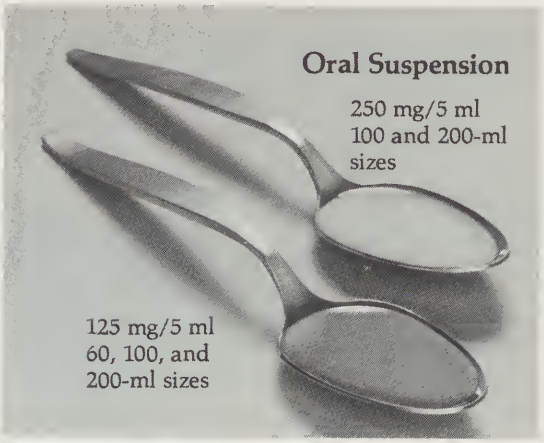
A 1947 graduate of I.U. School of Medicine, Dr. Lukemeyer served a residency in internal medicine at I.U. University Medical Center and was board certified in 1957.

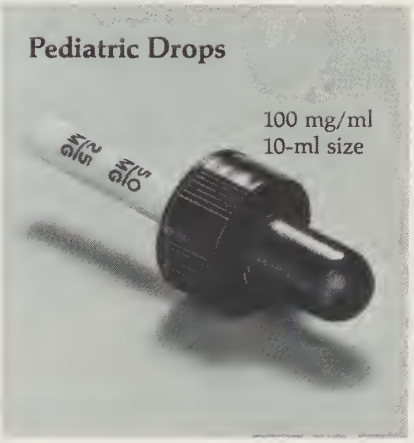
Dr. Lukemeyer has served in a variety of academic and administrative positions with the I.U. School of Medicine as well as holding consultative and advisory positions with such groups as the Indiana State Health Planning Council, Indiana Governor's Commission on Medical Education, and Indiana Comprehensive Health Planning Subcommittee on "Manpower and Development Task Force." He was recently appointed to a new Indiana Chamber of Commerce standing committee to study escalating business costs related to health care.

He is a fellow of the American College of Physicians and a member of the American Federation of Clinical Research, Association of American Medical Colleges, and American Association for Advancement of Science. He also is a member of the board of directors of the Marion County Medical Society, of which he is past president and past secretary-treasurer. From 1976 to 1979, Dr. Lukemeyer served as governor of Indiana for the American College of Physicians. He was born in Francisco, Ind., and was graduated from Jasper High School, Jasper, Ind. He and his wife Barbara reside in Indianapolis. They have two children.

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The 'Solution' on Acid Rain

The Voice of Business

QUESTION: What is The Great Hoosier Rip-Off? Answer: That's what we're facing on the acid rain issue unless we can pound some sense into those responsible for determining the solution to this most vexing problem.

At present, the word "solution" may not be the correct term to describe what is likely to happen. "Rip-off" is the more likely result.

Congress set up its own interagency task force in 1980 to make a thorough, long-range study of acid rain—its causes and its consequences—in order to have a solid base of fact on which to act. But the environmentalists and the doomsayers won't wait for the results of that study. They are screaming for our lawmakers to act immediately, and the burden is set to fall upon . . . you guessed it, Indiana and its Midwestern neighbors.

Congress is beginning to display shaky knees and fidgety feet—getting ready to run for cover (or, perhaps, re-election) rather than waiting for its own task force report on what really causes the problem.

That may be one of history's most expensive dashes. According to John Templeton, president of Templeton Coal Company, Terre Haute, reducing the use of high-sulphur coal and forcing installation of new plants and new equipment could cost $300 billion over the next 30 years plus the sacrifice of some 314,000 jobs, 89,000 of them directly in the coal mining industry.

No Guarantee of Solution

And for what, asks Templeton? As with past examples of legislating on shaky grounds, it might be a colossal misjudgment. Legislation pending in Congress would grossly inflate our utility bills with no guarantee of success in reducing water and soil problems in the northeastern U.S. and Canada—the areas claiming adverse effects.



JOHN W. WALLS
President
Indiana State
Chamber of Commerce

The fact is, the acid rain issue is just not that simple.

Current proposals rest heavily, perhaps too heavily, on the theory that the problems in the northeast—inconsistent loss of aquatic life in lakes and sporadic harm to vegetation—are caused by acid rain resulting from pollutants emitted by electric generating plants hundreds of miles away. They do not adequately address the evidence showing possible *local* causes for the harm, and other sources of origin for acid rain.

For one thing, the East itself burns huge amounts of high-sulphur oil. And, according to Templeton, a task force on acid rain in Connecticut suggests that Connecticut's acidic lakes are the result of decaying plant life in the surrounding soil.

The current dilemma is one for which politics is demanding a solution that science is really not prepared to support. And for this, Indiana may be called upon to shut down or expensively inhibit its job-producing energy industry.

More Study Needed

According to Jack Calvert, chairman of an acid rain study performed by the National Academy of Science: "We cannot judge whether reducing emissions in a specific geographic area would help significantly to alleviate the acid rain problem in another geographic area within eastern North America."

To answer such questions, the NAS committee said, would require more study.

Political expectations are too often heightened before sound scientific data can point the way toward a solution. Too often, a guess becomes the environmental policy. That is why, despite the millions of dollars already spent in response to complicated environmental laws, we still find the public dissatisfied with the results promised to them.

We in Indiana are being shoved into a corner—trying to minimize our losses when all of us should be working jointly together for a sound solution that will conclusively address the problem, whatever it is.

We are told that current proposals, if enacted, will grossly increase our electric bills. Unfortunately, there is no certainty that they will mitigate the problem.

In vitro studies demonstrate

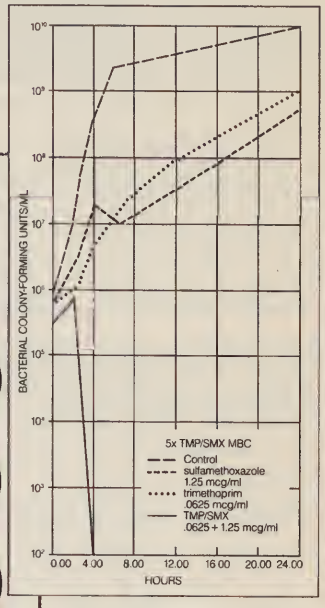
Bactericidal activity with minimal resistance

Percent of isolates of common uropathogens sensitive to BACTRIM and to other antimicrobials

	Escherichia coli	*Klebsiella pneumoniae*	*Proteus mirabilis*	*Proteus vulgaris*	*Proteus sp.*	*Enterobacter sp.*	*Enterobacter aerogenes*	*Enterobacter cloacae*
BACTRIM	**96%** 328,598	**89%** 63,551	**93%** 62,691	**84%** 4174	**91%** 4381	**88%** 1736	**96%** 7326	**92%** 11,856
ampicillin	72% 345,209	5% 65,466	85% 67,338	16% 4381	70% 4402	10% 1775	9% 7759	11% 12,091
cephalexin†	81% 343,339	85% 67,031	92% 67,027	16% 4398	80% 4365	22% 1834	13% 7571	12% 11,846
nitrofurantoin	97% 307,785	65% 61,162	7% 59,775	13% 3848	14% 3059	67% 1707	60% 7109	67% 10,830

†Analogous to cephalothin, the primary antibiotic disc used in testing.
Source: The Bacteriologic Report, BAC-DATA Medical Information Systems, Inc., Winter Series, 1981-82.
Numbers under percentages refer to the projected number of isolates tested.

RAPID *IN VITRO* DESTRUCTION OF *E. COLI* *



Kill curve kinetics of Bactrim and its individual components against *E. coli in vitro*.[1]

The bactericidal action of Bactrim has been demonstrated *in vitro* on laboratory strains of *E. coli*[1,2] and on clinical isolates of *E. coli, Klebsiella-Enterobacter, Proteus mirabilis* and *Morganella morganii*[3]—the most common causative organisms of urinary tract infections.[4] More than 100 published studies attest to the efficacy of Bactrim in recurrent urinary tract infections due to these organisms.[5] In comparative studies with other antimicrobials, Bactrim has consistently demonstrated unsurpassed efficacy during therapy.[6-11]

Resistance to Bactrim develops more slowly than to either of its components alone *in vitro*.* Among urinary tract isolates, resistance has rarely emerged in susceptible strains.[5,12] Bactrim is contraindicated in pregnancy at term, during lactation, in infants less than two months old and in documented megaloblastic anemia due to folate deficiency.

Initial episodes of uncomplicated urinary infections should be treated with a single-agent antimicrobial.

Bactrim™ DS

(trimethoprim and sulfamethoxazole/Roche)

b.i.d. *for recurrent urinary tract infections*

**In vitro* data do not necessarily predict clinical results.

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See next page for references and a summary of product information.

References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 2. Kramer MJ, Mauriz YR, Robertson TL, Timmes MD: Morphological studies on the effect of subinhibitory and inhibitory doses of sulfamethoxazole-trimethoprim combination on *Escherichia coli*. Presented at the 12th International Congress of Chemotherapy, Florence, Italy, Jul 19-24, 1981. 3. Spicehandler J *et al: Rev Infect Dis* 4:562-565, Mar-Apr 1982. 4. Stamey TA: *Pathogenesis and Treatment of Urinary Tract Infections*. Baltimore, Williams & Wilkins, 1980, p. 13. 5. Ronald AR: *Clin Ther* 3:176-189, Mar 1980. 6. Cooper J, Brumfitt W, Hamilton-Miller JMT: *J Antimicrob Chemother* 6:231-239, 1980. 7. Gower PE, Tasker PRW: *Br Med J* 1:684-686, Mar 20, 1976. 8. Cosgrove MD, Morrow JW: *J Urol* 111:670-672, May 1974. 9. Iravani A *et al: Antimicrob Agents Chemother* 19:598-604, Apr 1981. 10. Schaeffer AJ, Flynn S, Jones J: *J Urol* 125:825-827, Jun 1981. 11. Rous SN: *J Urol* 125:228-229, Feb 1981. 12. BAC-DATA Medical Information Systems, Inc., Bacteriologic Reports, Winter Series, 1976-82.

Bactrim™ DS

(trimethoprim and sulfamethoxazole/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, hepatocellular necrosis, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients. *Pregnancy:* Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions fo sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, hepatocellular necrosis, diarrhea, pseudomembranous colitis and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, afaxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: *Not recommended for infants less than two months of age.*

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 fablefs (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 20. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per tea spoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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Nutley, New Jersey 07110

References:
1. Stone PH, Turi ZG, Muller JE: Efficacy of nifedipine therapy for refractory angina pectoris. *Am Heart J* 104:672-681, September 1982
2. Antman E, Muller J, Goldberg S, et al: Nifedipine therapy for coronary-artery spasm: Experience in 127 patients. *N Engl J Med* 302:1269-1273, June 5, 1980.

BRIEF SUMMARY

PROCARDIA® (nifedipine) **CAPSULES** For Oral Use

INDICATIONS AND USAGE: I. Vasospastic Angina: PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm. In those patients who have had angiography the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied. PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component but where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion or in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers.

II. Chronic Stable Angina (Classical Effort-Associated Angina): PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance but confirmation of sustained effectiveness and evaluation of long-term safety in those patients are incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings.)

CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA.

WARNINGS: Excessive Hypotension: Although in most patients, the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly tolerated hypotension. These responses have usually occurred during initial titration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Severe hypotension and/or increased fluid volume requirements have been reported in patients receiving PROCARDIA together with a beta blocking agent who underwent coronary artery bypass surgery using high dose fentanyl anesthesia. The interaction with high dose fentanyl appears to be due to the combination of PROCARDIA and a beta blocker, but the possibility that it may occur with PROCARDIA alone, with low doses of fentanyl, in other surgical procedures, or with other narcotic analgesics cannot be ruled out. In PROCARDIA treated patients where surgery using high dose fentanyl anesthesia is contemplated, the physician should be aware of these potential problems and if the patient's condition permits, sufficient time (at least 36 hours) should be allowed for PROCARDIA to be washed out of the body prior to surgery.

Increased Angina: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Beta Blocker Withdrawal: Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release. There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA.

Congestive Heart Failure: Rarely, patients, usually receiving a beta blocker, have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater risk for such an event.

PRECAUTIONS: General: Hypotension: Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. (See Warnings.)

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug interactions: Beta-adrenergic blocking agents. (See Indications and Warnings.) Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates. PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antianginal effectiveness of this combination.

Digitalis: Administration of PROCARDIA with digoxin increased digoxin levels in nine of twelve normal volunteers. The average increase was 45%. Another investigator found no increase in digoxin levels in thirteen patients with coronary artery disease. In an uncontrolled study of over two hundred patients with congestive heart failure during which digoxin blood levels were not measured, digitalis toxicity was not observed. Since there have been isolated reports of patients with elevated digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing PROCARDIA to avoid possible over- or under-digitalization.

Carcinogenesis, mutagenesis, impairment of fertility. When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose.

Pregnancy: Category C. Please see full prescribing information with reference to teratogenicity in rats, embryotoxicity in rats, mice and rabbits, and abnormalities in monkeys.

ADVERSE REACTIONS: The most common adverse events include dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients; transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%. Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antianginal medication. Additionally the following have been reported: muscle cramps, nervousness, dyspnea, nasal and chest congestion, diarrhea, constipation, inflammation, joint stiffness, shakiness, sleep disturbances, blurred vision, difficulties in balance, dermatitis, pruritus, urticaria, fever, sweating, chills, and sexual difficulties. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

Laboratory Tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CPK, LDH, SGDT, and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy. The relationship to PROCARDIA therapy is uncertain. These laboratory abnormalities have rarely been associated with clinical symptoms. Cholestasis, possibly due to PROCARDIA therapy, has been reported twice in the extensive world literature.

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA CAPSULE contains 10 mg of nifedipine. PROCARDIA CAPSULES are supplied in bottles of 100 (NDC 0069-2600-66), 300 (NDC 0069-2600-72), and unit dose (10x10) (NDC 0069-2600-41). The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

More detailed professional information available on request

c 1982, Pfizer Inc.

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"I can do things that I couldn't do for 3 yrs. including joining the human race again."



Quotes from an unsolicited letter received by Pfizer from an angina patient. While this patient's experience is representative of many unsolicited comments received, not all patients will respond to Procardia nor will they all respond to the same degree.

1983, Pfizer Inc.

"My daily routine consisted of sitting in my chair trying to stay alive."

"My doctor switched me to PROCARDIA[*] *as soon as it became available. The change in my condition is remarkable."*

"I shop, cook and can plant flowers again."

"I have been able to do volunteer work...and feel needed and useful once again."

PROCARDIA can mean the return to a more normal life for your patients—having fewer anginal attacks,[1] taking fewer nitroglycerin tablets,[2] doing more, and being more productive once again.

Side effects are usually mild (most frequently reported are dizziness or lightheadedness, peripheral edema, nausea, weakness, headache and flushing, each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%).



for the varied faces of angina

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(NIFEDIPINE) *Capsules 10 mg*

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1) Confirmed vasospastic angina.
2) Angina where the clinical presentation suggests a possible vasospastic component.
3) Chronic stable angina without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or nitrates or who cannot tolerate these agents. In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks' duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these patients are incomplete.

Please see PROCARDIA *brief summary on adjoining page.*

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ibuprofen, Upjohn
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J-9043-4 July 1



AUXILIARY REPORT

Hulda Classen (Mrs. Peter)
President, ISMA Auxiliary

Andrea Kuipers, President
Tippecanoe County Med. Auxiliary

We have much to be proud of in Tippecanoe County: a rich historical heritage, a stable economic base, a sense of educational prominence and achievement linked with Purdue University, and the solid school systems in our city and county areas.

At the top of the Tippecanoe County Medical Auxiliary's "Pride List" are Lafayette's two outstanding community hospitals: Lafayette Home Hospital and St. Elizabeth Hospital Medical Center. Each of these institutions is served and advanced by their own auxiliary, and the Tippecanoe County Medical Auxiliary feels a close kinship and affiliation to these hospital auxiliaries.

Home Hospital Auxiliary undertakes a tremendous project in the fall of each year with the Home Hospital Fair. A full year of planning goes into this project with much community support and involvement. This three-day affair is highlighted with a Sunday Dinner served to the public by the county physicians and their spouses. It's a fun time for all—patients, families and friends enjoy seeing "their" doctor and spouse dressed in aprons and actually WORKING! This has been an annual project for our medical auxiliary in cooperation with the Home Hospital auxiliary since 1974.

The St. Elizabeth Hospital Auxiliary also presents a fund-raising event during September: a luncheon and dinner in a beautiful setting at a local restaurant banquet facility. A pivot point of this event is the presentation of the Elizabethan Awards, the highest honor the hospital bestows to individuals who promote the hospital in various ways. A delightful fashion show coordinated by a local department store adds to the festivities. Several of the lovely models are members of our county auxiliary, and a recipient of this year's Elizabethan Award is a physician and member of the Tippecanoe County Medical Society.

The auxiliaries of Home Hospital, St. Elizabeth Hospital and Tippecanoe County Medical Society share a common goal: to promote the highest quality of medical care to our community.



A SUNDAY DINNER for the public is hosted each year by the Home Hospital Auxiliary, with the assistance of the Tippecanoe County Medical Auxiliary. Serving are, from left, Judy Bougher, Ruth Moran, Carol Williamson and Toots Sherman.



A LUNCHEON AND STYLE SHOW is hosted annually by the St. Elizabeth Hospital Auxiliary and the Tippecanoe County Medical Auxiliary.

BOOK REVIEWS

Medical Ethics

Three volumes, all edited by Marc D. Basson, University of Michigan, Alan R. Liss, Inc., New York, 1980-81: Titles: "Ethics, Humanism and Medicine," "Rights and Responsibilities in Modern Medicine," and "Troubling Problems in Medical Ethics."

These volumes consist of reports of conferences held at the University of Michigan on ethical and moral issues that are of vital importance in interactions between recipients and deliverers of health care—particularly between physicians, nurses and patients. Most of the issues are old but modern medical technology has created new ones.

It is significant that the stimulus for these conferences comes from a group of undergraduate medical students who felt a need for more instruction in physician-patient relations, an area which had not been previously integrated into the curriculum. The leader of this group was a third year medical student at the time he got together the first book in this series. Marc Basson has continued as editor of the series, which presumably will have more volumes on the issues mentioned.

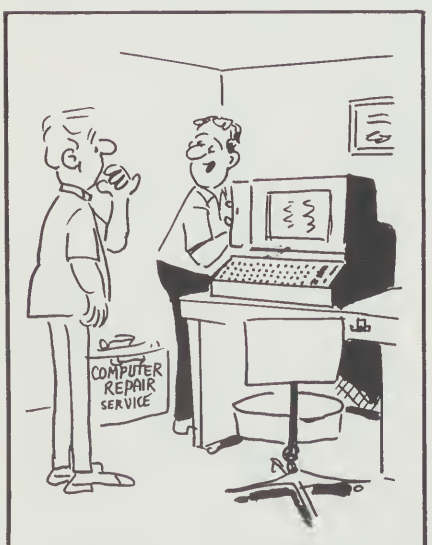
The plan of the conferences reported in each volume is to begin with a case report, which brings up an unresolved ethical-moral question about which a decision must be made. Examples are:

"The Right to Know in Doctor-Patient Relations"
"Under What Circumstances Should Euthanasia Be Performed"
"Amniocentesis and Abortion for Sex Choice"
"Scarce Medical Resource Evaluation in the Intensive Care Unit"
"Medicine, Law, and the Good Samaritan"
"The Right to Health Care"
"Informed Consent in Medical Treatment"

In every instance more than one discipline enters the discussion depending upon the particular subject. Thus lawyers, philosophers, clergymen, public health workers, interested undergraduates as well as physicians are involved. Because the planners and often participants are enthusiastic and idealistic, young people who are searching for practical answers to perplexing problems which they have actually encountered, the discussions are lively and practical.

Within the scope of the three volumes listed above most of the common problems dealing with patient-physician relations are covered as well as some of the larger ones relating to government and society as a whole. In the tables of contents the conferences are grouped within categories, but so arranged that a busy physician may easily find a short discussion of a particular problem with which he is confronted. These books should be a welcome addition to the libraries of the various disciplines represented.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine



"I'm afraid it has a slipped disk."

The Alliance of American Insurers has prepared and published *Handbook of Hazardous Materials*, to aid in making basic evaluations of the extent of hazardous material exposures and to promote the recognition of potential insurance-related occupational disease problems and to suggest industrial hygiene controls. The book is chiefly concerned with occupational disease and health hazard problems but it also includes fire and explosion data. It sells for $8, plus postage and handling.

Review of Medical Physiology

11th Edition, by William F. Ganong, M.D. Copyright 1983, Lange Medical Publications, Los Altos, Calif. 643 pages, softcover, $20.

This 11th edition appears on the 20th anniversary of the publication of the first edition. Its goal is to provide a condensed summary of human physiology, primarily for medical students, but also for physicians and others desiring to review the subject. The book is generously illustrated and includes a comprehensive index. The end papers, presenting atomic weights and normal laboratory values, are particularly helpful.

W. D. Snively, Jr., M.D.
Evansville
Internal Medicine

Physicians Handbook

By M. A. Drupp, L. M. Tierney, E. Jawetz, R. L. Roe, and C. A. Camargo. Copyright 1982, Lange Medical Publications, Los Altos, Calif. 774 pages, softcover, $12.

Like the whole Lange series, this book is designed primarily for medical students and para-medical people. Also in common with the other Lange publications it will doubtless be used widely by practicing physicians. Texts of formidable size and costs in all fields of medicine are proliferating at an almost alarming rate. Confronted with clinical problems arriving constantly in actual practice, physicians need quick, useful answers. For three generations Merck's manual has traditionally met this need to some extent. Several medical schools have developed similar books to meet their particular needs.

Of all such manuals which this reviewer has encountered the most comprehensive and reliable one is the Lange handbook, first published in 1941 and updated every three years. It deals primarily with diagnosis arrived at by history taking, physical findings and laboratory procedures. There is only incidental mention of treatment except for quick measures to use in medical emergencies. Consideration of the latter

is brief but specific and practical. The section on electrocardiography will be useful to non-cardiologists. The section on drugs and hormones is comprehensive, but condensed enough to provide the essentials for quick therapy. Practical points in diagnostic procedures such as thoracic and abdominal paracentesis, arterial puncture, lumbar puncture, sigmoidoscopy, etc. are covered quite adequately. I was surprised to find a short section on Medical Genetics.

Considering all the ground it covers in a condensed and practical manner, this Lange handbook must be regarded as a small gem that every physician who sees patients is sure to find helpful.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Handbook of Pediatrics

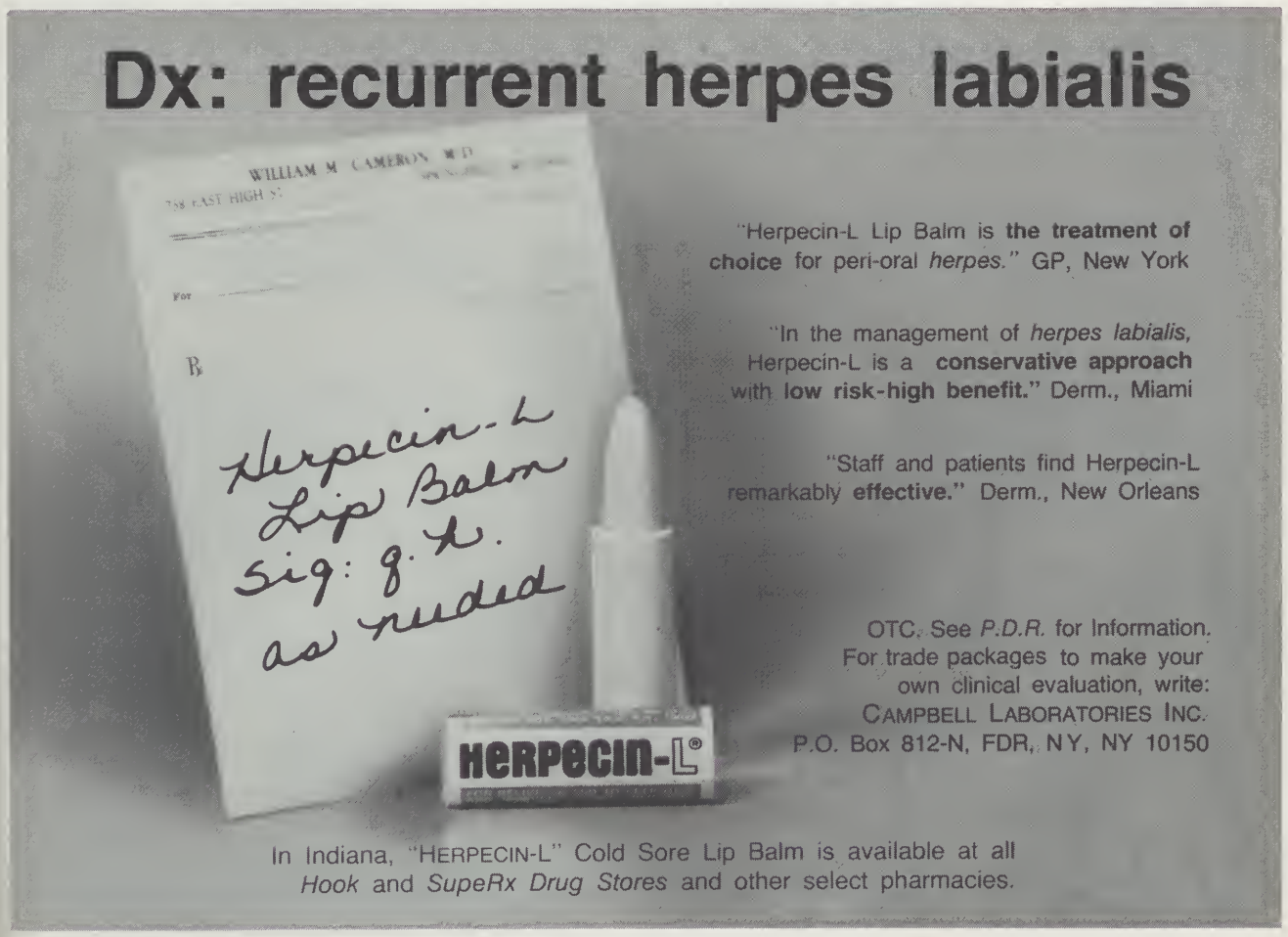
14th Edition, by H. K. Silver, M.D., C. H. Kempe, M.D. and H. B. Bruyn, M.D. Copyright 1983, Lange Medical Publications, Los Altos, Calif. 881 pages, softcover, $13.

The 14th edition has undergone extensive revisions and additions. The goal of the handbook remains the same—to present to the medical student, the practicing physician, and other allied health personnel a concise and easily accessible body of information concerning pediatric disorders. Review of the contents indicate that it eminently meets its goal. The emphasis is clinical, as is appropriate for a handbook of this kind. This sturdily bound little text is heartily recommended for its target audience.

W. D. Snively, Jr., M.D.
Evansville
Internal Medicine

Thieme-Stratton announces Volume 1 of a new "*Clinical Chemotherapy*" series. Thirty internationally known contributors provide information on various therapeutic applications. The collection is edited by Helmut P. Kuesmmerle, M.D., of Tokyo Medical College. 512 pages, 152 illustrations, $68.

Prentice-Hall has published *How To Do Business With the IRS*, written by Randy Bruce Blaustein, a former IRS agent and now an attorney and tax accountant. It is written as a guide for attorneys but contains the kind of information useful for all taxpayers. $39.95, plus postage and handling.





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I.U. STUDENT FORUM

THINKING SMALL IN A LARGE PLACE

"How many students are there?" This common remark concerning Indiana's freshman medical school class size may be heard emanating both from the public and echoing down the halls among first-year students. So what has Indiana University, as one of the largest medical schools in the U.S., done to compensate for the anonymity and problems that may develop as a consequence?

Ms. Jill Hazelwood, director of Educational Support Programs, explains: "All medical schools have orientation programs, but very few include a support program which is maintained throughout the freshman year." In 1981, Indiana University School of Medicine formed, in addition to the initial freshman orientation program, a faculty/student support program consisting of 10 groups, each made up of 16 students and two faculty members. This year, besides basic science faculty members, a clinical science faculty member and two upperclassmen were added to each support group. This fall these small groups were further subdivided into groups of eight freshmen so that individual students could interact more with their group leaders. The purpose of the faculty/student support program was to establish and provide advice and support in the areas of documented stress such as anxieties about starting school, mastering quantities of material and making personal and social adjustments. The objectives of the program are:

a) to increase faculty-student communication and support of student problems, curricular issues, career goals;

b) to increase intra-class student communication and support;

c) to decrease student anonymity and the large class image; and

d) to encourage internal faculty-student support activity.

This fall, the small groups first assembled on Orientation Day and, over coffee and donuts, students met their assigned faculty members. This time was designed to "lessen the students' anxieties over the first day of medical school and to provide immediate student interaction." Faculty members discussed such subjects as the time required for course study and preparation and study resources available. They also expressed interest in helping students deal with personal or academic problems.

After these discussions with the faculty, the students met with two volunteer upperclassmen to obtain advice on how to deal with the new lifestyle encountered in medical school. The upperclassmen discussed various important topics such as class notes, student organizations, life outside medical school, stress, coping mechanisms, as well as where to eat, study and sleep. Though much can be learned from talking with fellow students and faculty, it was emphasized that everyone is unique; each person must attain a comfortable balance between academic pursuits and extracurricular activities.

Continuing throughout the year, the small student groups are maintained in all of the labs such as Anatomy, Microbiology and Histology in hope of "establishing camaraderie within each group and encouraging positive working relationships." Also, the students meet with the faculty in formal and informal settings throughout the year to discuss different topics.

Results of the faculty/student support program, from both the faculty and the students' points of view, will be discussed in our next article. In addition, we will address possible areas of improvement and new ideas for future programs at Indiana University School of Medicine.



NEWS NOTES

Sobering Statistics

"If we pull you over, you had better be sober."

That's the stern, hopefully effective, message being used in a statewide public awareness campaign to save lives by informing the public about Indiana's new drunk driving law.

An average of 18 people are killed or injured by drunk drivers every day in Indiana.

The strict legislation, which took effect Sept. 1, includes the following major changes in the law:

- It is now a crime to operate a vehicle with a blood alcohol content greater than .10. It no longer is necessary to show that the driver was operating the vehicle in an impaired fashion. A violation could result in a six-month sentence and a $500 fine.
- A driver who refuses to take a Breathalyzer test automatically will lose his or her license for a year. This provision can only be appealed for limited reasons.
- A driver who fails a Breathalyzer test automatically will have his or her license suspended for 180 days or until the case is resolved in court. In no event will the suspension be for less than 30 days.

The new legislation was the result of work by the Governor's Task Force to Reduce Drunk Driving. The task of informing the public is being shared by the Indiana Prosecuting Attorneys Association and the ISMA Ad Hoc Committee on Drunk Driving.

More than half a million dollars will be spent in this campaign. Other organizations making substantial contributions to the campaign include the Indiana State Police, Naegele Outdoor Advertising, and members of the Indiana Broadcasters Association.

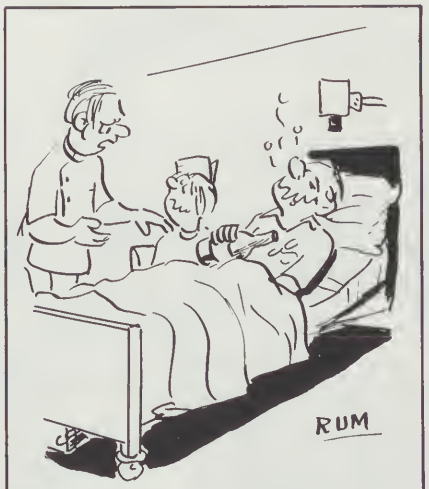


STEPHEN GOLDSMITH (right), Marion County prosecutor and president of the Indiana Prosecuting Attorney's Association, presents a plaque to Dr. John A. Knote, then ISMA president, in appreciation for the ISMA's cooperation in launching the statewide drunk driving campaign. At left is Capt. Lloyd Monroe, representing the Indiana State Police.

Dr. Brady Honored

Dr. Thomas A. Brady, Indianapolis, was honored Sept. 21 when Methodist Hospital of Indianapolis dedicated its Sports Medicine Center at 1919 N. Capitol Ave., Indianapolis, and named it the Thomas A. Brady Sports Medicine Center.

The ceremony included remarks by the mayor of Indianapolis, William H. Hudnut, III. Eldon Campbell, chairman, Board of Directors, Methodist Health Foundation, presented a plaque to Dr. Brady. Dr. K. Donald Shelbourne, orthopedic surgeon, and Billy Keller, head basketball coach at Indiana Central University, also spoke. Drs. Brady and Shelbourne are members of the ISMA Commission on Sports Medicine.



"When I said I wanted this patient plastered - - - - I meant a cast!"

Medical Exhibit

"Medicine in Antebellum Indiana: Conflict, Conservatism and Change" is an Indiana Historical Society exhibit that will be on display in Indianapolis early next year.

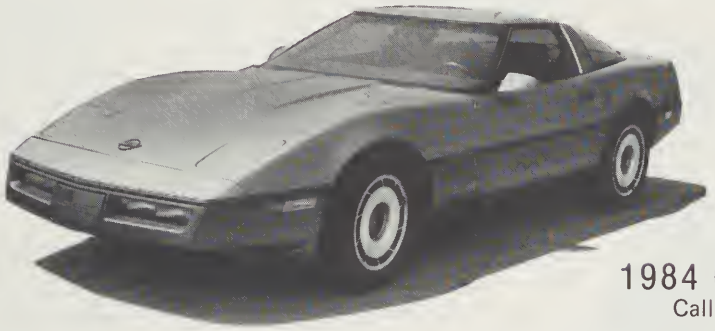
The exhibit, which covers such topics as medical practices, education, and the "professionalization" of medicine, can be viewed in the Indiana Historical Society gallery at 315 W. Ohio St., Indianapolis, from late February through June 30. No charge for admission. For more information, call the Society at (317) 232-1877.

Nutrition Clinics

The Division of Nutrition of the Indiana State Board of Health conducts 84 clinics to offer services to pregnant or postpartum women, nursing mothers, and children from birth to age 5 who are known to be at nutritional risk. the W.I.C. Clinics are located in 60 counties.

Information for the benefit of patients who are thought to be in need of such services may be obtained by calling the nearest W.I.C. Clinic. The State Board of Health will recommend the nearest clinic if its location is not known.

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1984 Dodge Daytona Turbo, loaded, (lists $13,832.00) . . . . . from $263.00 per mo.
1983 Mercedes 380 SEC, two left for the price of an SEL . . . . . $776.00 per mo.
1984 Mercedes 190 E or D, (Dr. Serano, we need your phone number) . . . . . not out yet
1981 Porsche 928S, all options, 36 K miles, perfect, assume lease at . . . . . $671.12 per mo.
1984 Porsche 930 Turbo Carrera, all options included . . . . . $898.00 per mo.
1982 Honda 4 dr. Accord, AT AC, Cassette, low miles, assume lease at . . . . . $198.00 per mo.
1984 Dodge Colt, basic transportation . . . . . from $98.00 per mo.
1984 BMW 318 i . . . . . from $284.00 per mo.

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Medical Society and Hospital References Available On Request

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NEWS NOTES

For the Asking . . .

Available to physicians for the asking are several brochures, pamphlets, films and videotapes:

● **"Physician Fees Under Medicare,"** an AMA brochure prepared by the Council on Medical Service, answers frequently asked questions about Medicare's physician fee profiles and reimbursement levels. Write Dept. of Health Care Financing and Organzation, AMA headquarters.

● **"Electrocardiography-Echocardiography Correlation: A Self-Assessment Program"** is a 55-minute videocassette program produced by the American College of Cardiology. (Drs. Charles Fisch and R. Joe Noble of Indianapolis helped produce the program.) It relates to 11 patients with evidence of right ventricular predominance, specifically those with a relatively tall R in lead V_1; the tracings and correlation with clinical findings are discussed and diagnosis is supported by 2-D echocardiography, hemodynamic data and angiography. Q&As are listed in an accompanying self-assessment test booklet. Videocassette Program #22, available in ½" VHS, ½" Beta or ¾" Umatic formats. $125. Write ACCEL Dept., American College of Cardiology, 9111 Old Georgetown Road, Bethesda, Md. 20814.

● **"Fluoridation"** is an illustrated 16-page pamphlet useful in public education concerning fluoridation of water supplies; such data as the cost and effects of cancellation of public water supply fluoridation on the incidence of dental decay in children are explained. Write the American Council on Science and Health, 47 Maple St., Summit, N.J. 07901. Include a self-addressed, stamped (37¢) long envelope.

● **"Operative Challenges in Urology"** is a new videotape that reviews four challenging surgical cases—Extravesical Ureteroneocystotomy, Island Pedicle Patch Urethroplasty, Dismembered Pyeloplasty, and Splenorenal Bypass. The cases were videotaped as they were performed at the Lahey Clinic by world-renowned surgeons. Available in ½" VHS, ¾" VHS, or ½" Betamax free loan. Write Norwich Eaton Pharmaceuticals, Norwich, N.Y. 13815.

● **"Urinary Incontinence in Women and Urinary Tract Infection"** is a new 38-minute, 16mm film available for sale or free loan. It includes operative details of endoscopic suspension of the vesicle neck. Write Norwich Eaton Pharmaceuticals, Norwich, N.Y. 13815.

● **"Breast or Bottle?"** is a 20-page booklet describing the pros and cons of breast feeding and bottle feeding. Write the American Council on Science and Health, 47 Maple St., Summit, N.J. 07901. Include a self-addressed, stamped (37¢) long envelope.

● **"The Family and the Disabled Child"** is a 29-minute videotape that shows how families have learned to adjust to a disabled child's needs. Produced in cooperation with Children's Specialized Hospital, Westfield, N.J. $150. Available in ½" VHS and ¾" cassette. Write Educational Consortium for Cable, 24 Beechwood Road, Summit, N.J. 07901.

Here and There . . .

. . . **Dr. Reid C. Crosby** has been elected chief of the medical staff at Bedford Medical Center; **Dr. Medhat H. Girgis** is chief of staff-elect, and **Dr. Pedro R. Ortegon** is secretary-treasurer.

. . . **Dr. Daniel R. Evans** of Valparaiso, president of the Indiana-Purdue Calumet Campus advisory board, has been re-appointed by Governor Robert Orr to a four-year term on the board.

. . . **Dr. Richard M. LaSalle** of Wabash has been named a diplomate of the American Board of Family Practice.

. . . **Dr. Jerome M. Leahey** of Union City has been named Randolph County health officer.

. . . **Dr. Raymond W. Nicholson** of Evansville has been selected as a finalist for the "Family Doctor of the Year" award to be presented by the American Academy of Family Physicians.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Bergan, Joseph A., Michigan City
Cripe, J. Patrick, Ossian
Daly, Joseph M., Indianapolis
Feeney, Martin T., Indianapolis
Guha, Durga D., Clinton
Healey, Robert J., Indianapolis
Horning, Richard R., Logansport
Hussey, Lawrence K., South Bend
Johnson, John C., Crown Point
Kaliney, William J., South Bend
Kettelkamp, Donald B., Indianapolis
Kho, James B., Terre Haute
Kiricenkov, George J., Mount Vernon
Krueger, James R., Evansville
Lee, Chung S., Fort Wayne
Lim, Young S., Evansville
Luce, John W., Michigan City
Miyamoto, Richard T., Indianapolis
Obetz, Merry L., Terre Haute
Rosevear, William H., Michigan City
Schmitt, Robert J., Munster
Sekulich, Milo M., Kokomo
Singer, Mark I., Indianapolis
Smith, James W., Indianapolis
Sputh, Carl B., Indianapolis
Weisenberger, Brockton L., Columbus
Woodward, William M., Westville
Zia Borham, M. Anoochehr, Bedford

. . . **Dr. Gregory N. Larkin** of Greencastle has been elected president of the American Heart Association, Indiana Affiliate.

. . . **Dr. Thomas O. Middleton** of Bloomington has been named president-elect of the Indiana Public Health Association.

. . . **Dr. Arthur F. Hoffman,** a Fort Wayne anesthesiologist, is this year's recipient of the ISMA's Physician Community Service Award.

. . . **Dr. Peter R. Skafish** of LaPorte discussed medical emergencies for children during a September meeting sponsored by the LaPorte County Extension Homemakers.

. . . **Dr. Marshall Roch** of Muncie discussed "Diabetes and the Eye" during a September meeting of the Muncie Diabetic Association.

. . . **Dr. Ronald C. Hamaker** of Indianapolis addressed the Greater Atlanta (Ga.) Otolaryngology-Head and Neck Surgery Society in September; he discussed "Primary Voice Reconstruction at Laryngectomy" and "Head and Neck Reconstruction with the PM Myocutaneous Flap."

. . . **Dr. Charlene E. Graves** of Indianapolis is the new director of pediatric medical education at Methodist Hospital.

. . . **Dr. Eugene W. McDonald** of Michigan City discussed respiratory diseases and their effect on the heart during a September program co-sponsored by the Michigan City Community Mended Hearts Club and St. Anthony Hospital.

. . . **Dr. Robert W. Clausen** of South Bend discussed "Management of Allergies in the Chronic Lung Disease Patient" during a September program sponsored by the South Bend COPE Club.

. . . **Dr. William W. Forgey** of Merrillville held a workshop on emergency medical treatment during the Outdoor Sportsmen's Rendezvous Sept. 24 in Crown Point.

. . . **Dr. Gary S. Stouder** of Greenfield participated in a September workshop on Child Abuse and Neglect Awareness, sponsored by the Hancock County Child Protection Team.

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*Committee on Dietary Allowances, National Research Council: *Recommended Dietary Allowances*, ed. 9. Washington, DC, National Academy of Sciences, 1980, p. 13.

Please see summary of product information on reverse page.

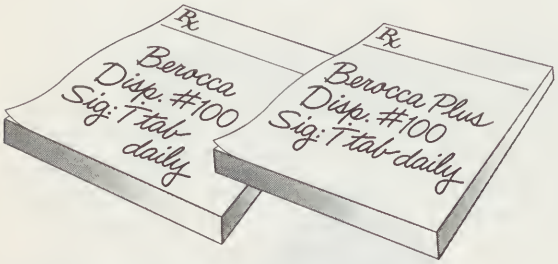
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INDICATIONS: Berocca—Supportive nutritional supplementation in which water-soluble vitamins are required prophylactically or therapeutically, including conditions causing depletion, or reduced absorption or bioavailability of water-soluble vitamins, conditions resulting in increased needs for water-soluble vitamins. Berocca Plus—Prophylactic or therapeutic nutritional supplementation in physiologically stressful conditions, including conditions causing depletion, or reduced absorption or bioavailability of essential vitamins and minerals, certain conditions resulting from severe B-vitamin or ascorbic acid deficiency, or conditions resulting in increased needs for essential vitamins and minerals.

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WARNINGS: Not for pernicious anemia or other megaloblastic anemias where vitamin B_{12} is deficient. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with vitamin B_{12} deficiency who receive supplemental folic acid and who are inadequately treated with B_{12}.

PRECAUTIONS: *General:* Certain conditions may require additional nutritional supplementation. During pregnancy, vitamin D and calcium supplementation may be required with Berocca Plus or supplementation with fat-soluble vitamins and minerals may be required with Berocca. Not intended for treatment of severe specific deficiencies. *Information for the Patient:* Toxic reactions have been reported with injudicious use of certain vitamins and minerals. Urge patients to follow specific dosage instructions. Keep out of reach of children. *Drug and Treatment Interactions:* As little as 5 mg pyridoxine daily can decrease efficacy of levodopa in treatment of parkinsonism. Not recommended for patients undergoing such therapy.

ADVERSE REACTIONS: Have been reported with specific vitamins and minerals, but generally at levels substantially higher than those in Berocca and Berocca Plus. Allergic and idiosyncratic reactions are possible at lower levels. Iron, even at recommended levels, has been associated with GI intolerance in some patients.

DOSAGE AND ADMINISTRATION: Usual adult dosage: one tablet daily. Available on prescription only. (Berocca Plus is not recommended for children.)

HOW SUPPLIED: Berocca—Light green, capsule-shaped tablets—bottles of 100 and 500. Berocca Plus—Golden yellow, capsule-shaped tablets—bottles of 100.

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NEWS NOTES

Heart Patient Magazine

The Association of Heart Patients is a voluntary, non-profit association created in 1977 by two Atlanta physicians to provide heart patients and their families with up-to-date information concerning technological advances, treatment, maintenance, and prevention of heart disease.

The organization, which has grown and prospered, has an official publication, *Pulse*, a quarterly that goes to all its members. AHP also sponsors a life insurance program and a drug discount for its members. The annual dues are $15, which are tax-deductible. Any patients who wish to join may write to P.O. Box 54305, Atlanta, Ga. 30308.

DRG Cassettes Available

A Bloomington organization, Conference Audio, is offering tape cassette recordings of proceedings at the Sept. 8 Indianapolis meeting concerning Diagnostic Related Groups (DRGs).

Individual cassettes cost $7. The entire package, consisting of five cassettes,



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is selling for $30, plus $1 for shipping and 5% Indiana sales tax. The tapes are as follows:

- "Diagnostic Related Groups—What They Are and Where They Came From"—Kenneth C. Beardsley, Associate Director, Long Hospital, who is responsible for financial affairs at Indiana University Hospitals.
- "The Role of Prospective Payment in Containing Hospital Costs"—Jeffery C. Kimmerling, CPA, Kimmerling Myers and Company, Inc.
- "The Impact of Prospective Payment on Physician-Hospital Relationships: Why Physicians Should Be Concerned"—Herbert Austin, Ph.D., Director, Division of Information Systems, Parkview Hospital.
- "Organized Medicine's Position: DRGs"—Malcolm O. Scamahorn, M.D., Vice Chairman, Council on Medical Service, AMA.
- Opening Remarks—John A. Knote, M.D., ISMA immediate past president; Summary and Wrap Up—George Lukemeyer, ISMA president.

Address requests to Conference Audio, 3030 N. Russell Road, Bloomington 47401—(812) 336-1776.

Hemophilia Fellowships

The National Hemophilia Foundation announces an increase in its individual grant research funding level from $15,000 to $20,000 for 1984.

NHF is now accepting applications for the Judith Graham Pool Postgraduate Research Fellowships in Hemophilia. Deadline for submission is December 15, 1983.

For full information and application form, write or call Marie Wildman, 18 W. 34th St., Suite 1204, New York, N.Y. 10001—(212) 563-0213.

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All diplomates of the ISMA are invited to enter a professional card in the *Directory*.

OBITUARIES

Churchill F. Worrell, M.D.

Dr. Worrell, 90, a retired Peru physician, died Sept. 24 at Dukes Memorial Hospital.

He was a 1917 graduate of the University of Maryland School of Medicine, and was an Army veteran of World War I.

Herman C. Sprecher, M.D.

Dr. Sprecher, 76, an Evansville proctologist, died Sept. 22 at St. Mary's Medical Center.

He was a 1940 graduate of the University of Illinois College of Medicine.

Dr. Sprecher was a member of the American Society of Colon and Rectal Surgeons.

Thomas C. Hall, M.D.

Dr. Hall, 76, a retired Chesterton physician, died Aug. 28 at Porter Memorial Hospital, Valparaiso.

He was a 1941 graduate of Loyola University Stritch School of Medicine, Chicago. He retired in 1976.

John R. Frank, M.D.

Dr. Frank, 95, a retired Valparaiso physician, died Aug. 29 at his home.

He was a 1917 graduate of Indiana University School of Medicine and was a Navy veteran of World War I.

Dr. Frank was a former ISMA delegate representing the Porter County Medical Society and was a member of the ISMA Fifty Year Club.

Norval E. Green, M.D.

Dr. Green, 72, a retired South Bend urologist, died Sept. 24 at his home.

He was a 1937 graduate of the Loma Linda University Medical School, Calif., and was an Army veteran of World War II.

Dr. Green was certified by the American Board of Urology and was a member of the American Urological Association.

Theodore N. Petranoff, M.D.

Dr. Petranoff, 93, a retired Indianapolis physician, died Aug. 19 in a local nursing home.

He was a 1921 graduate of Indiana University School of Medicine and was an Army veteran of World War I.

Dr. Petranoff, who retired in 1970, was a member of the ISMA Fifty Year Club.

Joseph W. Strayer, M.D.

Dr. Strayer, 82, a retired Lafayette physician, died Sept. 7 at Home Hospital.

He was a 1929 graduate of Case Western Reserve University School of Medicine, Cleveland, and was a veteran of World War I.

Dr. Strayer, a former president of the Home Hospital board of directors, was a fellow of the American College of Chest Physicians. His memberships also included the American Thoracic Society and the ISMA Fifty Year Club.

Randolph W. Jones, M.D.

Dr. Jones, 49, an Indianapolis Ob-Gyn specialist, died Sept. 20 at Methodist Hospital.

He was a 1965 graduate of Indiana University School of Medicine. He was listed in the 1977-78 "Who's Who of Black Americans" for his work in infertility and adolescent gynecology.

Dr. Jones was a board member of Humana Hospital and a member of the Aesculapian Medical Society. He was certified by the American Board of Obstetrics and Gynecology and was a member of the American College of Obstetrics and Gynecology.

Elizabeth G. Tate, M.D.

Dr. Tate, 67, a retired Dunkirk physician, died Aug. 27 in a Muncie nursing home.

She was a 1939 graduate of Indiana University School of Medicine. She retired from practice in 1972.

Dr. Tate was an Army veteran of World War II. She had been on the medical staffs at Ball Memorial Hospital, Jay County Hospital and Blackford County Hospital. She was a former president of the Jay County Medical Society.

James M. McIntyre, M.D.

Dr. McIntyre, 68, an Indianapolis proctologist, died Sept. 17 at his home.

He was a 1940 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. McIntyre was a member of the American College of Surgeons and the American Society of Colon and Rectal Surgeons. He was certified by the American Board of Colon and Rectal Surgery.

Ralph E. Reynolds, M.D.

Dr. Reynolds, 59, an Anderson anesthesiologist, died Sept. 24 at Community Hospital, Anderson.

He was a 1958 graduate of Indiana University School of Medicine.

Dr. Reynolds was a member of the American Society of Anesthesiologists.

Memorials: Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

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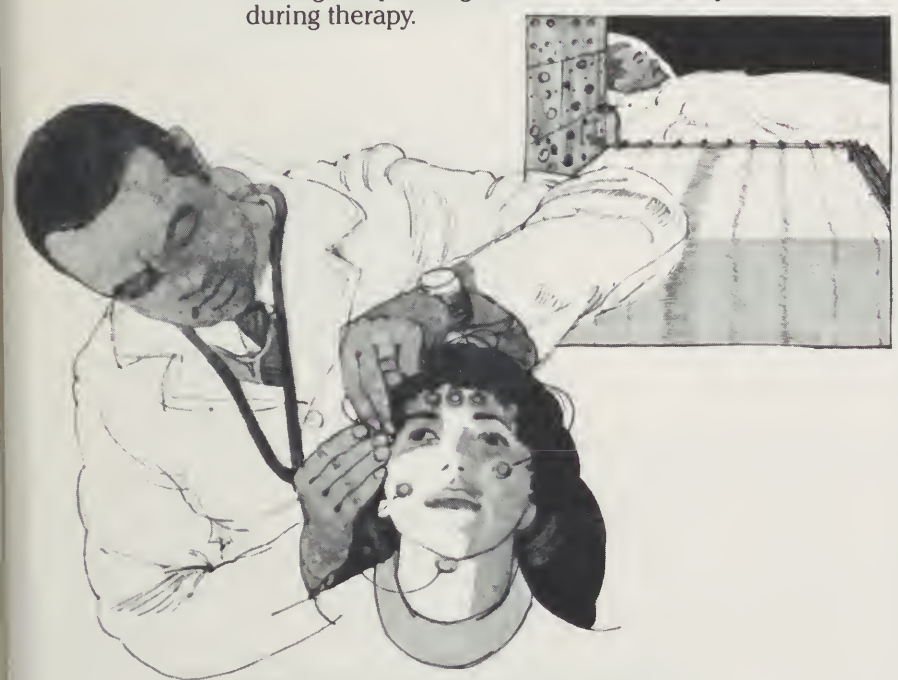
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References: 1. Kales A *et al: J Clin Pharmacol 17*:207-213, Apr 1977 and data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Kales A: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **3.** Zimmerman AM: *Curr Ther Res 13*:18-22, Jan 1971. **4.** Kales A *et al: JAMA 241*:1692-1695, Apr 20, 1979. **5.** Kales A, Scharf MB, Kales JD: *Science 201*:1039-1041, Sep 15, 1978. **6.** Kales A *et al: Clin Pharmacol Ther 19*:576-583, May 1976. **7.** Kales A, Kales JD: *Pharmacol Physicians 4*:1-6, Sep 1970. **8.** Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc 27*:541-546, Dec 1979. **9.** Dement WC *et al: Behav Med 5*:25-31, Oct 1978. **10.** Vogel GW: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **11.** Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington, DC, May 3-7, 1971. **12.** Pollak CP, McGregor PA, Weitzman ED: The effects of flurazepam on daytime sleep after acute sleep-wake cycle reversal. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, June 30-July 4, 1975. **13.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

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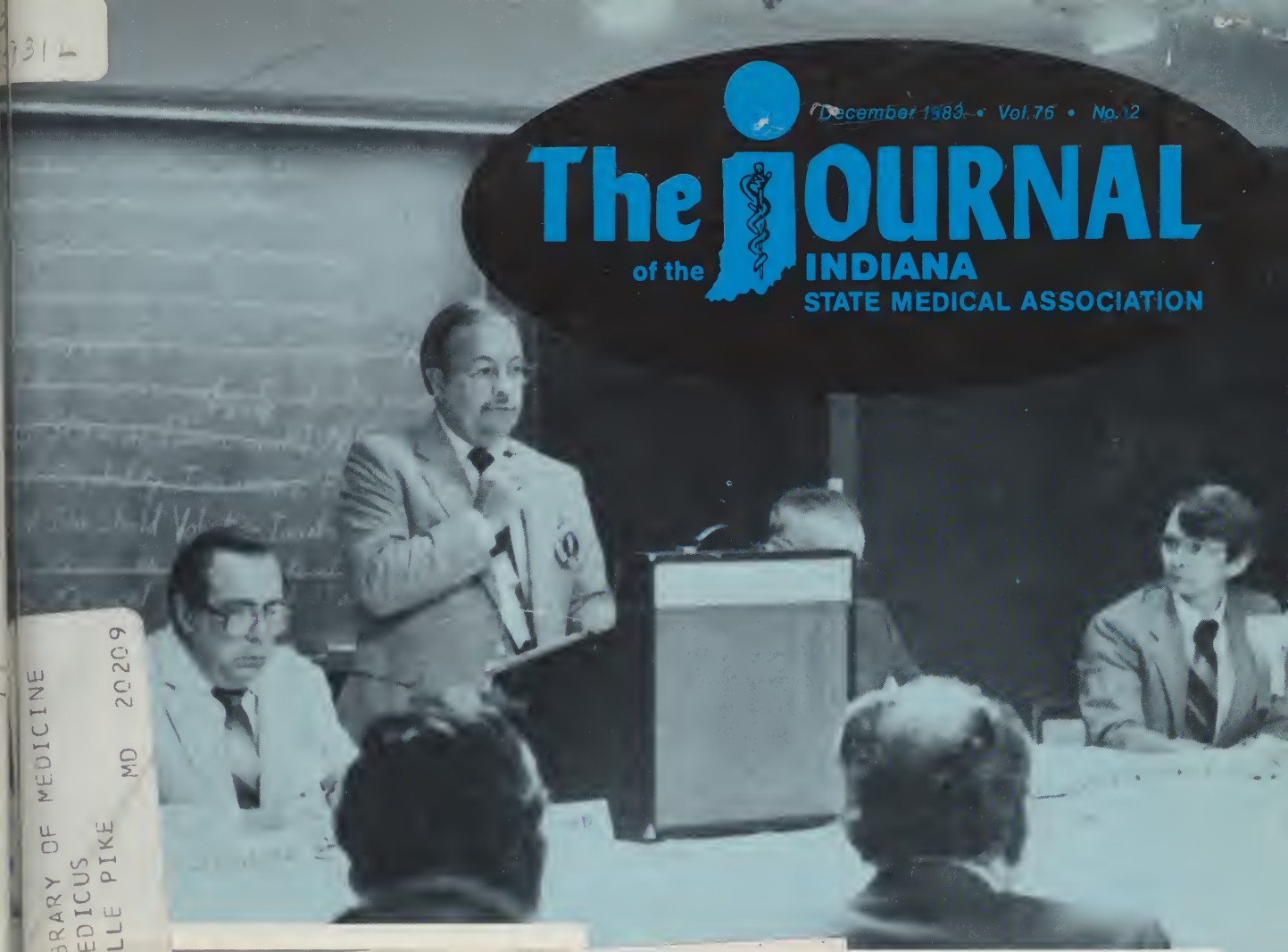
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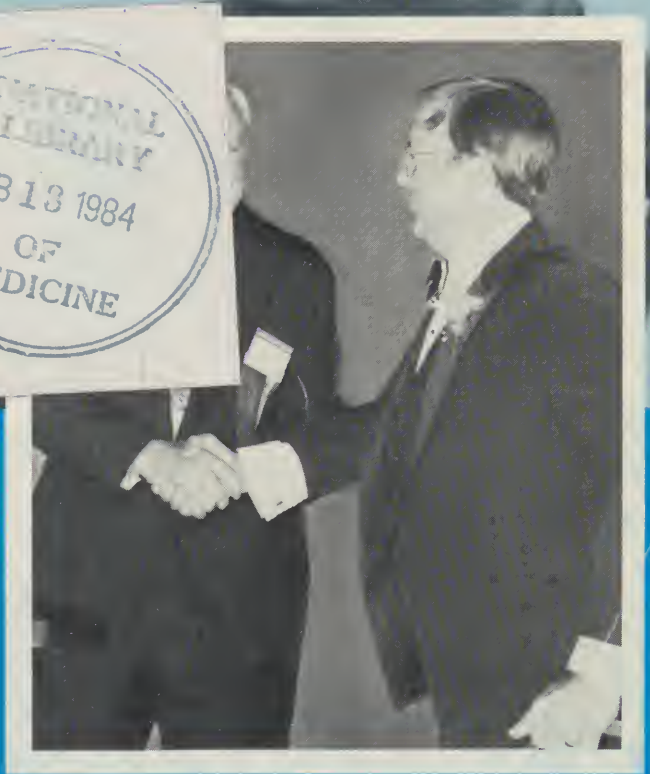


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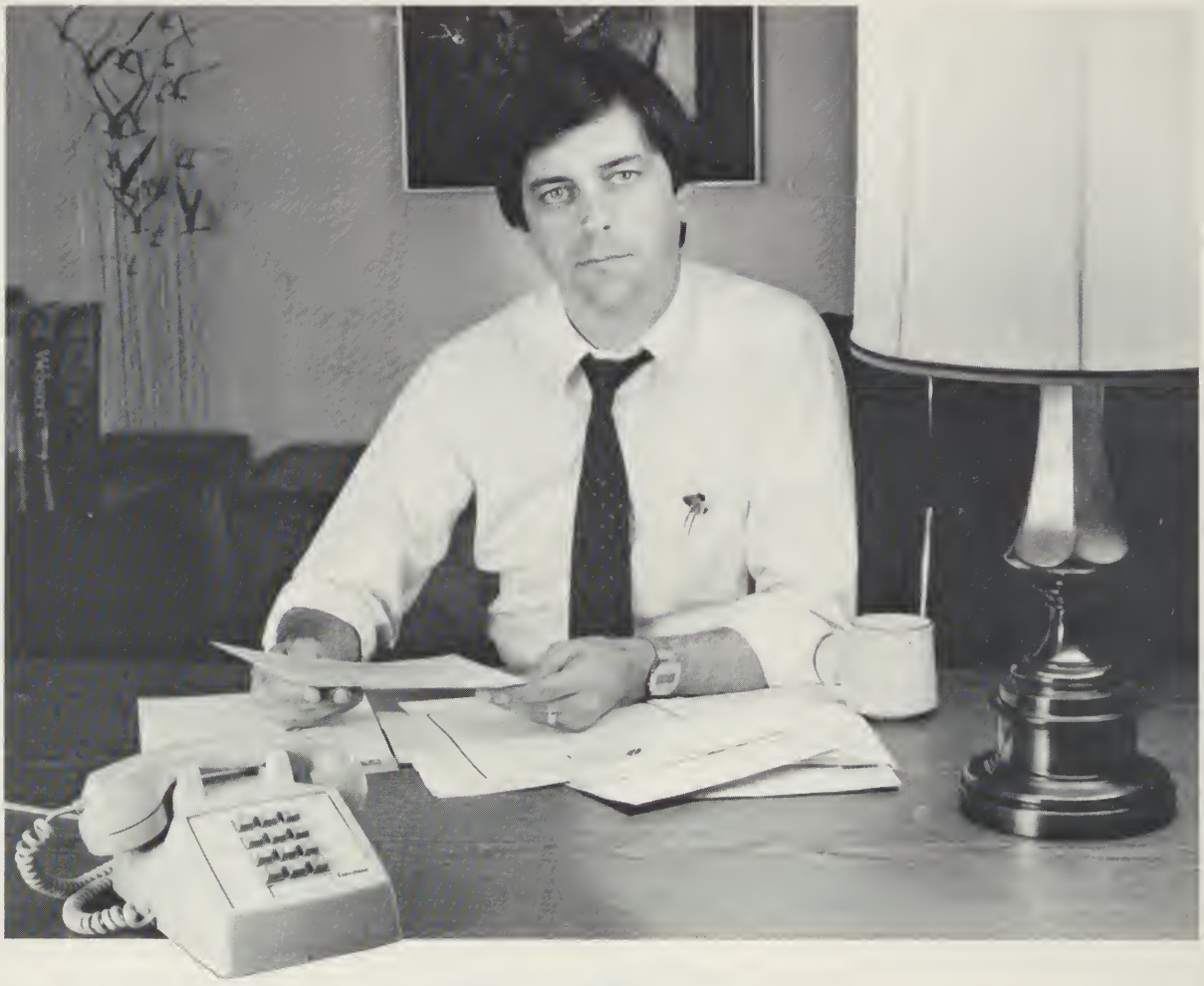






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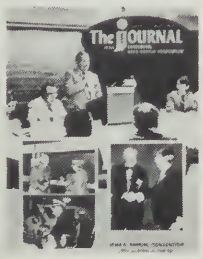
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ABOUT THE COVER

Our convention cover photos show Dr. John A. Knote, outgoing ISMA president, testifying during a Reference Committee hearing; Dr. William M. Sholty of Lafayette and Dr. Charles A. Bonsett of Indianapolis chatting at the Registration Desk; Captain Gilbert Cooper of Owensboro, Ky. at the controls of the Executive Queen; and Dr. Knote congratulating Dr. George T. Lukemeyer, newly installed ISMA president. More convention news begins on page 861.—PHOTOS BY JOYCE WOLF AND KARYL HANCOCK

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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

AT THE RECENT Indiana Scientific Meeting of the American College of Physicians (Oct. 28-29), I presented a brief slide program, this being an introduction to the motion picture (by MERP) honoring the late Dr. James Oscar Ritchey (1891-1981). Several of the photographs used for that program are reproduced on this page.

FIGURE 1: The continuity, progress and transfer of medical education rests ultimately upon the teacher-pupil relationship. The pupil of one generation is the teacher of the next. This photo (from the *Arbutus* for 1918, p. 210) shows bedside teaching in the best tradition of Osler. On the left in the dark suit is Dr. Charles Emerson. On the opposite side of the bed with arms folded across his chest is Senior medical student James Ritchey.

Dr. Emerson, a student of Dr. William Osler and an 1899 graduate of the Johns Hopkins School of Medicine, came to the Indiana University School of Medicine in 1911. Dr. Ritchey carried on his teaching tradition for well over half a century, influencing the careers of thousands of Hoosier physicians.

FIGURE 2: A school is commonly identified by its architectual symbol but this may have a transient existence, and the symbol of one generation may not be recognized by the next. Shown here is a 1917 photo of Indiana University School of Medicine; Jim Ritchey was a Junior medical student at the time.

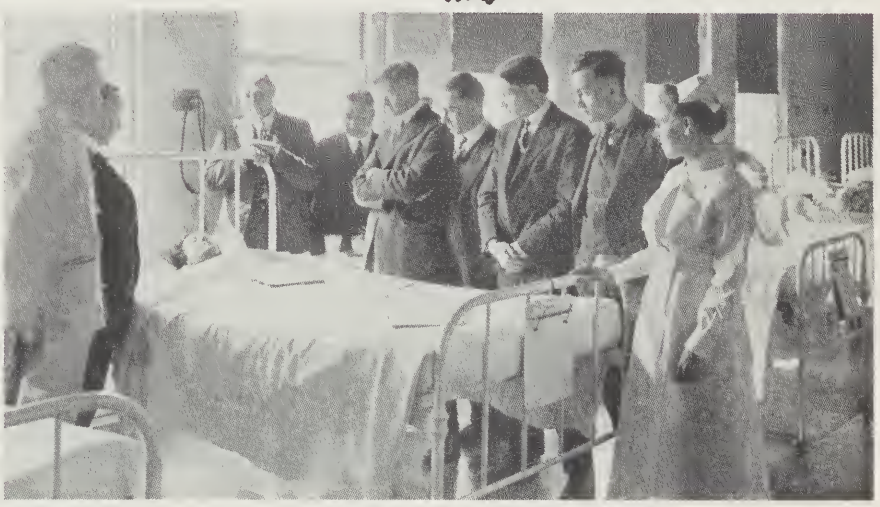


FIGURE 1

J. O. Ritchey, M.D.
1891-1981



FIGURE 4

FIGURE 3: The scene here is October 1971, looking northwest from the lawn of the State Capitol. The medical school no longer exists. Behind the area once occupied by the school is the State Office Building, and to the north is the State Library and Indiana Historical Society Building.

FIGURE 4: This 1935 pencil sketch of Dr. Ritchey by Dr. Terrence Billings, then a medical student, provides the likeness and the cigar that many of his former students remember. And though the man (like the architectual symbol of his 1914-1918 school) is gone, the school lives on through the continuity of his students, many of whom are now teachers, at I.U. and elsewhere.



FIGURE 2



FIGURE 3

WHAT'S NEW?

The 3M Company has new extra-fast-setting synthetic casting tapes. Setting is at least twice as fast as 3M's regular casting products and are equal to them in cured strength. Called New Scotchcast Extra Fast, the new tape is composed of water-activated knitted fiberglass, and utilizes a faster-setting polyurethane resin.

Park Surgical announces the Park Amplifier Mark II. It is a speech amplifier which is useful for patients with vocal cord difficulties, laryngectomies or Parkinson's Disease. It is useful also as an amplifier for clinicians, lecturers and exhibitors. It is all solid state circuitry. Operates on a standard 9 volt battery.

Concept, Inc. has received FDA approval to market a new enteral feeding tube made from C-FLEX, a patented thermoplastic elastomer.

Hewlett-Packard announces a new doppler capability for determining the direction and velocity of blood flow through cardiac chambers. The new capability is available as an upgrade to existing HP ultrasound imaging systems. It provides critical information to help evaluate valvular lesions, ventricular function, congenital defects and other cardiac abnormalities.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

The Mead Johnson Nutritional Division has introduced Naturacil™, a safe and effective natural fiber bulking agent for the relief and prevention of simple constipation, and for bowel management of patients with chronic constipation, diverticulosis, hemorrhoids, irritable bowel syndrome and postsurgical bowel requirements. Each dose provides 3.4 grams of natural fiber from psyillium in two soft chewable, bite-size pieces with a mild chocolate flavor. The preparation is low in sodium and calories.

Amko has a new self-retaining cervical trigger cannula which features a flexible teflon tip that facilitates introduction and has an automatic ratchet for positive tension. The entire instrument may be autoclaved. It is useful especially for all tubal procedures including insufflation, x-ray and hydrotubation.

'Baby Doe' Rule Arbitrary, Capricious

Court Action

A rule concerning the care and treatment of handicapped newborn infants born in hospitals receiving federal aid was arbitrary and capricious, a federal trial court in the District of Columbia ruled.

The Secretary of Health and Human Services issued an interim final rule addressing the treatment and care of newborn infants who suffered from severe mental or physical defects. The regulations were issued without public comment. They required that every maternity ward, pediatric ward, and nursery post a sign stating that discriminatory failure to feed and care for handicapped infants was prohibited by federal law. The rule set up a 24-hour hotline for reporting possible violations and required institutions to give 24-hour access to hospital records and facilities during any investigation.

Courtesy of *The Citation*, Aug. 15, 1983.

In an action challenging the regulations, the court said that they were arbitrary and capricious. The court said that the record contained no consideration whatsoever of the disruptive effects of the 24-hour hotline on ongoing treatment of newborns. "In a desperate situation where medical decisions must be made on short notice . . . , the sudden descent of 'Baby Doe' squads on the scene, monopolizing physician and nurse time and making hospital charts and records unavailable during treatment, can hardly be presumed to produce higher quality of care for the infant," the court said.

The court said that no attempt was made in the rule to address the issue of whether termination of painful, intrusive medical treatment might be appropriate when the prognosis was death within days or months or to specify the level of care in those futile cases.

The court found that the record contained no indications that alternative means of protecting handicapped infants were considered or that there was such a widespread denial of proper newborn care as would justify this type of regulation. The court also found that the regulation purported to set up an enforcement mechanism without defining the violation since there is no customary standard of care for the treatment of severely defective infants.

The court said that the regulation was also invalid because it was not issued in compliance with the public notice procedure required by federal law for administrative regulations.—*American Academy of Pediatrics v. Heckler*, 561 F. Supp. 395 (D.C., D.C., April 14, 1983)

Editor's Note: The American Medical Association filed an *amicus curiae* brief for the plaintiffs in this case.

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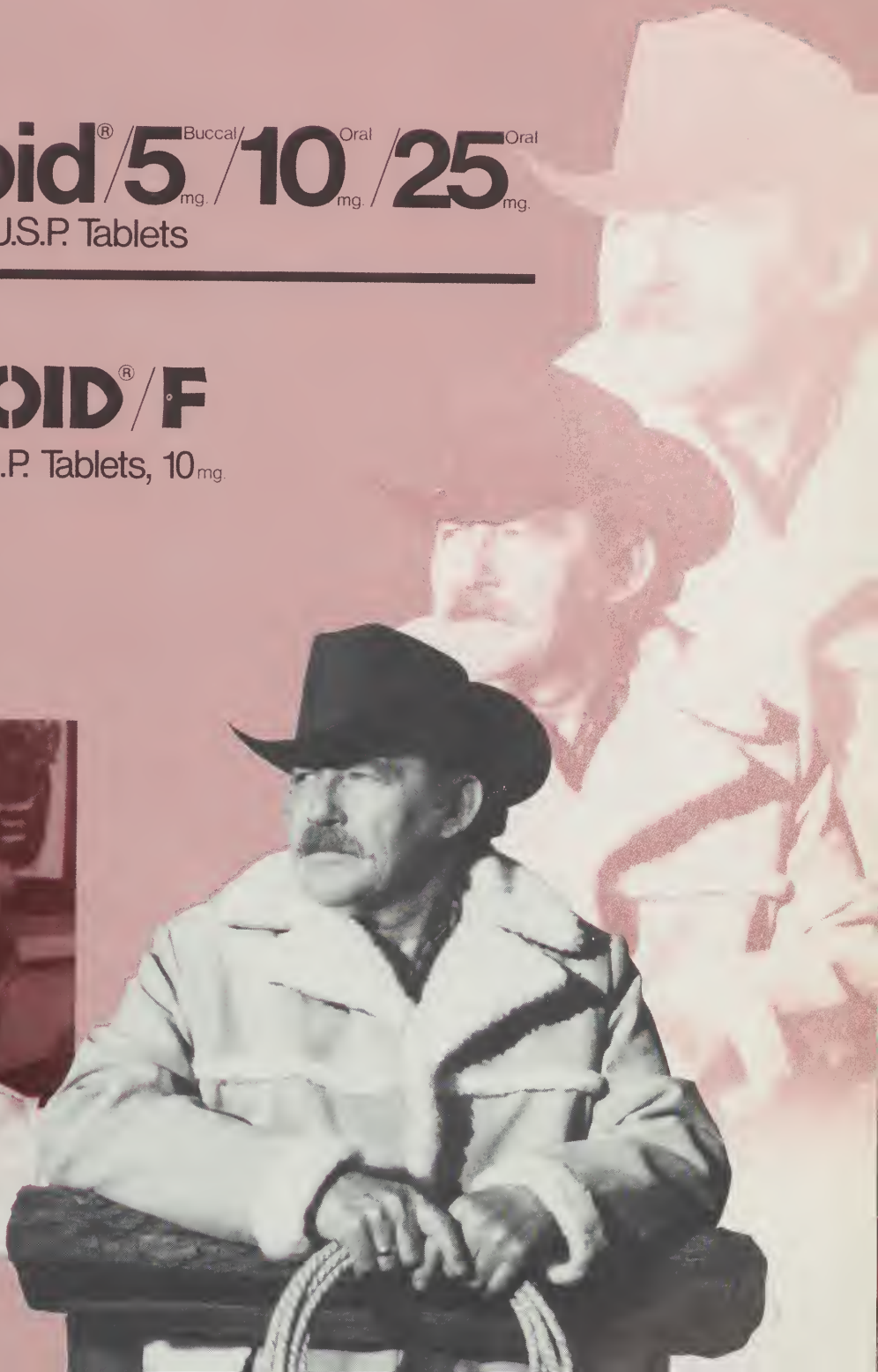
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CONTRAINDICATIONS: Hypersensitivity to any of the components, concurrent MAO inhibitor therapy, severe hypertension, bronchial asthma, coronary artery disease, stenosing peptic ulcer, pyloroduodenal or bladder neck obstruction. Do not use in children under 12 years.

Do not use this drug in patients with narrow-angle glaucoma, obstructive or paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrage, severe ulcerative colitis, toxic megacolon complicating ulcerative colitis, myasthenia gravis. Do not use in nursing mothers.

Use in treating lower respiratory tract symptoms, including asthma, is contraindicated.

WARNINGS: Caution patients about activities requiring alertness (e.g., operating vehicles or machinery). Antihistamines are more likely to cause dizziness, sedation, and hypotension in elderly patients. Patients should also be warned about the possible additive effects of alcohol and other CNS depressants.

Usage in pregnancy: Safe use in pregnancy has not been established. Use only when the potential benefits have been weighed against the possible hazards to the mother and child. Note that an inhibitory effect on lactation may occur.

PRECAUTIONS: Use with caution in patients with a history of bronchial asthma, increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension, hiatal hernia with reflux esophagitis, intestinal atony of the elderly or debilitated intestinal obstruction, myasthenia gravis, renal function impairment, and ulcerative colitis (severe).

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Respiratory System: Thickening of bronchial secretions, tightness of chest and wheezing, nasal stuffiness.

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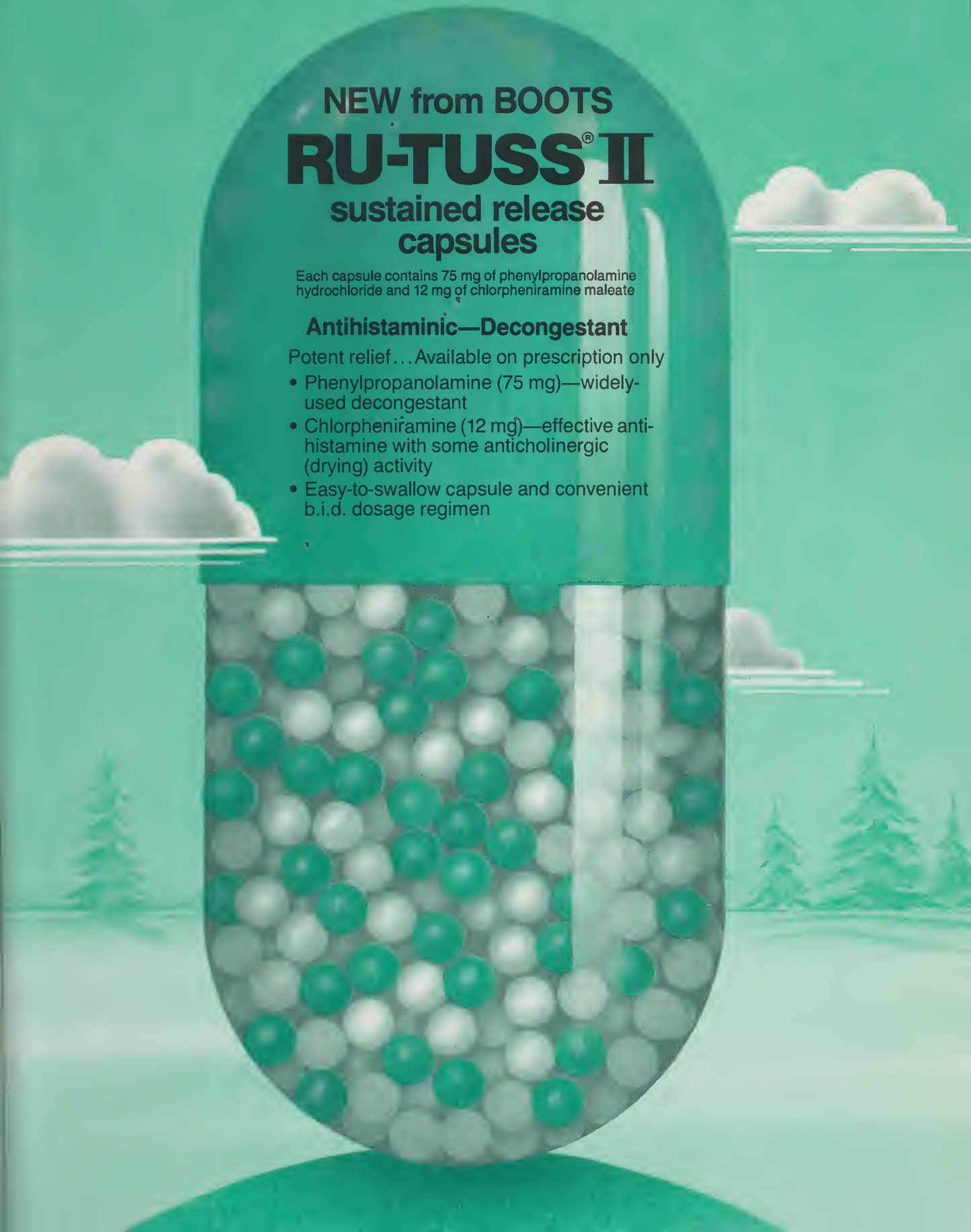
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FUTURE FILE

Cytopathology Course

The Johns Hopkins Postgraduate Institute for Pathologists in Clinical Cytopathology will conduct its 25th course beginning in February. A loan set of slides with text will be sent to each participant for home study during February and March. This is followed by a two week In-Residence course in Baltimore March 25 to April 6. Application should be made before Jan. 31.

Write to John K. Frost, M.D., 604 Pathology Building, The Johns Hopkins Hospital, Baltimore 21205.

China Conference

An International Breast Cancer Conference will meet in Tianjin, China, April 24 to 27, 1984. The faculty includes clinicians from the Peoples Republic of China, France, Italy, Switzerland and the United States.

For full particulars write to Mr. C.H. Tu, Managing Director, Inter-World Exchange Service Ltd (IWE), 401/2 & 404/5 Metropole Bldg., 57 Peking Road, Kowloon, Hong Kong. An optional post-conference tour is planned for 10 days in China.

Kidney Disease

"Analgesic-Associated Kidney Disease" is to be the subject of a National Institutes of Health Consensus Development Conference Feb. 26 to 29 at the Masur Auditorium, 9000 Rockville Pike, Bethesda, Md.

To register for the conference or obtain further information, write or call Mrs. Michele Dillon, 2115 E. Jefferson St., Suite 401, Rockville, Md. 20852—(201) 468-6555.

Emergency Medicine

The 1984 annual meeting of the University Association for Emergency Medicine will be held at the Hyatt Regency in Louisville May 23 to 26. Abstracts for scientific articles to be presented at the meeting will be accepted until Feb. 15. Mail five copies to UA/EM, 900 West Ottawa, Lansing, Mich. 48915.

Rural Health

"Exploring Frontiers of Rural Health—Visions for a Better Tomorrow" is the theme of the Eighth Annual Institute of the American Rural Health Association which meets at the Epcot Center, Orlando, Fla., June 5 to 8, 1984. Abstract forms are available from Dr. L. E. Moody, College of Nursing, University of Florida, JHMHC, Box J-187, Gainesville, Fla. 32610. Those who wish to apply via the abstract form for a place on the program for workshops or research papers should complete and return the form by Dec. 15. Dr. Moody is also the correspondent for information on conference logistics, registration, etc.

Internal Medicine

"The Year in Internal Medicine" is the subject of a CME course to be conducted by Northwestern University Medical School Jan. 25-28. The course is credited for 22 hours of AMA Category 1. The fee is $205 plus $18 for each workshop attended.

For details, contact The Alumni Center for Continuing Education, 301 E. Chicago Ave., Chicago 60611—(312) 649-8533.

Pain in Cancer Patients

"Management and Theory of Pain in Cancer Patients" is the subject of a meeting at the Four Seasons Hotel in Houston, Texas on April 5 to 7. Sponsorship will be by The University of Texas M. D. Anderson Hospital and Tumor Institute and the National Pain Foundation. For information, contact the Office of Converence Services, Box 131, M. D. Anderson Hospital, 6723 Bertner Ave., Houston 77030—(713) 792-2222.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

ACS Conference

The American Cancer Society Fourth National Conference on Human Values and Cancer meets March 15 to 17 in New York City.

For details write Diane J. Fink, M.D., ACS, 777 Third Ave., New York, N.Y. 10017.

Ultrasound Imaging

"The Use of Diagnostic Ultrasound Imaging in Pregnancy" is the subject of a Consensus Development Conference to be sponsored by the National Institutes of Health Feb. 6, 7, and 8 in the Masur Auditorium in the NIH Clinical Center. CME credit is granted.

To register, write or phone Peter Murphy, Prospect Associates, 2115 E. Jefferson St., Suite 401, Rockville, Md. 20852—(301) 468-6555.

Pathologists Meeting

The United States-Canadian Division of the International Academy of Pathology will meet at the San Francisco Hilton March 12 to 16. Special courses will be offered on "Immunopathologic Techniques in Diagnostic Pathology" and "Electron Microscopy in Surgical Pathology." Forty-four short courses are scheduled.

Nathan Kaufman, M.D., 1003 Chafee Ave., Augusta, Georgia 30904, phone (404) 724-2973, is secretary-treasurer of the division and will provide further information on request.

Pediatric Update

A postgraduate course, "Pediatric Update-1984," will be conducted by the Long Island Jewish-Hillside Medical Center Jan. 10 to 15 at the Pierre Marquez, Acapulco, Mexico. Tuition is $185. Eighteen hours in Category 1 will be granted.

Correspondent is Ann J. Boehme, CME Coordinator, Long Island Jewish-Hillside Medical Center, 400 Lakeville Road, New Hyde Park, N.Y. 11042—(212) 470-2114.

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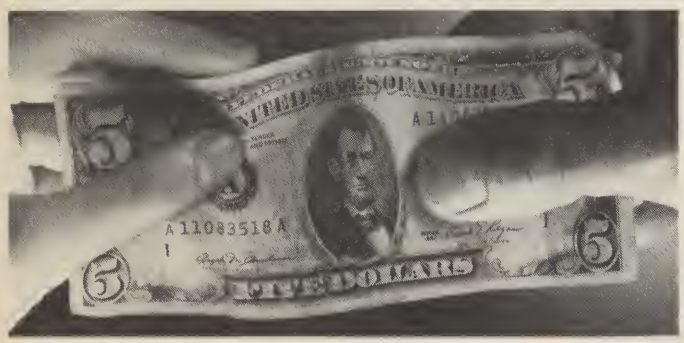
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RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

New information from
Office of the Commissioner
Indiana State Board of Health
1330 W. Michigan St.
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

POPULATION PROJECTIONS AND IMPLICATIONS FOR PUBLIC HEALTH AND THE MEDICAL PROFESSION

The Indiana State Board of Health, in conjunction with the Indiana University School of Business, recently has completed and released population projections for Indiana. The projections cover the period from 1980 to the year 2020.

The study updates population projections made in 1978 by the Board of Health and the School of Business. It is based on analysis of the 1980 United States Census, fertility and mortality trends and net migration patterns. Results of the study have several important implications for health and medical services in Indiana.

The 1980 Census figures indicate that the number of Hoosiers increased by 296,500 (5.7 percent) from 1970 to 1980. The increase between 1980 and 2020 is projected to be 610,000 (11.1 percent) or less than half the rate of increase between 1970 and 1980. The projected increase in U.S. population is 29 percent by 2020.

There will be a general aging of the populations over the next 40 years. For example, the study projects a decline of 370,000 persons in the under 40 age group while the number age 40 and over is projected to increase by 980,000. (The decline in the number of less than 40 is based on current fertility trends. Modest increases in fertility rates could eliminate that drop.) The number of people age 65 and over is expected to increase by nearly 55 percent, from 585,400 in 1980 to 895,820 by 2020.

In general, major urban counties, such as Lake and Marion, are expected to have little net population change prior to 2020. Suburban counties (Hamilton, Porter, etc.) are expected to continue to grow more rapidly but at a slower rate than for the 1960 to 1980 period. Rural counties which overall showed declines prior to 1970 are projected to have relatively stable populations.

Perhaps the key finding is that Indiana, as well as the United States, will have an older population with the mean age for the state expected to go from 29.2 years to 38.3 over the 40-year period. This phenomenon can be attributed to the baby boom generation (born in the period from 1950 to 1970) as well as the present low fertility rates.

Implications for the health and medical system are the changes in the availability of resources and changes in the amount and type of service demanded.

The availability of the resources may be affected by the out-migration of work-age adults and the slight decline in fertility. Both will contribute to a shrinking base of employed persons. This may reduce the funds available to purchase health and medical care. Tax revenue to support publicly funded programs may also diminish. The number of people available for health professions may also be affected.

The aging population will probably demand more services; for example:

1. The health problems of those 65 years of age and over tend to be chronic conditions which require maintenance with little possibility of cure. Health and medical professionals will need to be better trained in the care of geriatric patients.

2. Historically, persons aged 65 and over have used hospitals four times more frequently than those younger. In 1982 there were 407 discharges per 1,000 population in the group age 65 years and over compared to 107 discharges per 1,000 population for all under age 64. Those persons over 65 also stay nearly twice as long in hospitals as the remainder of the population.

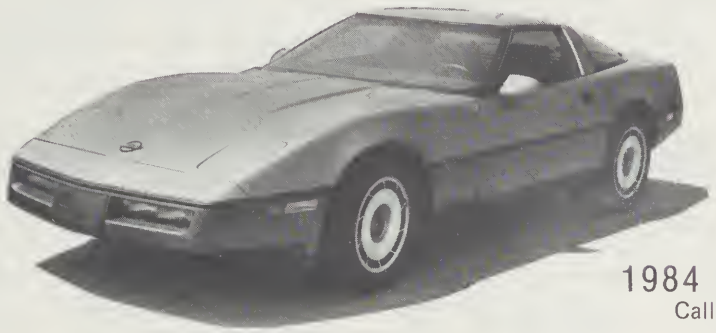
3. More than half of all nursing home residents in Indiana are women aged 75 and over. Nearly one woman in five aged 85 and over are in nursing homes. Nearly 85 percent of all nursing home residents are men and women age 65 and over.

4. Persons aged 65 and over tend to visit physicians more often than those 64 and under. For example, in 1979 persons aged 65 and over averaged approximately 4,600 visits per 1,000 population. Persons aged 45 to 64 averaged just over 3,600 visits per 1,000 population.

These scenarios are based on current utilization patterns. We have options which could be considered to improve the health of the population and ultimately reduce the demand for expensive forms of health and medical services. Promoting health and preventing disease could reduce illness and disability. Alternates to inpatient care, such as home health care that keep people functioning in their own homes, should continue to be developed.

It is important that we take the opportunity that we have to consider public policies which can achieve the improvements in health and health behavior before these projections become fact. We can, if we choose, develop policies that encourage private activity rather than governmental activity to achieve the health status and health system Hoosiers continue to strive to reach.

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The program focuses primarily on investigator-initiated projects rather than directed research undertaken on a contract basis. With the exception of staff and facilities to carry out its epidemiological studies, ACS neither hires researchers nor operates its own laboratories. This enables the Society to place its grants where innovative and promising ideas are being explored.

A key factor in the role of the Society in cancer research is providing qualified scientists with alternative sources to carry on their work. The Society believes it can make most effective use of its research funds by supporting scientists working in established medical institutions across the country. In this way there is a minimum of overhead and a maximum of flexibility to make sure that research money yields results. Applications for ACS grants are put through a rigorous process of evaluation beginning with careful study by the appropriate one of ten scientific review committees, evaluation by two additional groups of experts, and ending with final approval by the National Board of Directors.

Indiana is currently the recipient of $907,165 for clinical investigative American Cancer Society sponsored grants.

AMERICAN CANCER SOCIETY AND CLINICAL INVESTIGATION GRANTS IN EFFECT IN INDIANA

Researcher	Institution	Grant Amount	Awarded	Term
Otto, Joann J. Ph.D.	Purdue University West Lafayette, IN	$122,002	1-1-81	12-31-83
Yim, George K. W., Ph.D.	Purdue University West Lafayette, IN	$ 57,604	1-1-83	12-31-83
Jones, Nicholas C., Ph.D.	Purdue University West Lafayette, IN	$ 87,938	7-1-83	6-30-84
Argos, Patrick, Ph.D.	Purdue University West Lafayette, IN	$124,000	7-1-78	6-30-83
Institutional Research Grant	Purdue University West Lafayette, IN	$ 30,000	7-1-83	6-30-84
Floss, Heiz	Purdue University West Lafayette, IN	$142,176	1-1-82	12-31-83
Bina, Minou, Ph.D.	Purdue University West Lafayette, IN	$150,000	7-1-80	12-31-83
Bonner, J. Jose, Ph.D.	Indiana University Bloomington, IN	$ 63,000	7-1-82	8-30-85
Putnam, Frank W., Ph.D.	Indiana University Bloomington, IN	$ 46,445	1-1-82	12-31-83
Lewin, Alfred S., Ph.D.	Indiana University Bloomington, IN	$ 54,000	1-1-82	12-31-84
Institutional Research Grant	Indiana University Bloomington, IN	$ 30,000	7-1-81	6-30-83

Purdue University - $713,720 | Indiana University - $193,445 | Total in Research Grants - $907,165

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Ventricular Arrhythmias: Guidelines for Primary Care Management

JAMES J. HEGER, M.D.
Indianapolis



As an organization accredited for continuing medical education, the Indiana University School of Medicine certifies that this CME activity meets the criteria for one credit hour in Category 1 for the Physician's Recognition Award of the American Medical Association, provided it is used and completed as designated.

To obtain Category 1 credit for this month's article, complete the quiz on page 851.

VENTRICULAR ARRHYTHMIAS are commonplace in the general population. Their clinical significance derives from the observation that these arrhythmias may identify patients who are at risk to develop life-threatening episodes of ventricular tachycardia or ventricular fibrillation. The purpose of this article is to review some aspects of the management of ventricular arrhythmias in normal subjects and in patients with mitral valve prolapse, cardiomyopathy and coronary heart disease.

Normal Subjects

When the cardiac rhythm of apparently normal subjects has been examined by continuous 24-hour electrocardiographic recordings, premature ventricular complexes have been found in 20-100% of the population.[1] The prevalence of ventricular arrhythmias increases with the age of the subject population. In addition, frequent premature ventricular complexes and repetitive forms such as ventricular pairs or runs of ventricular tachycardia occur more commonly in elderly subjects. Although a large percentage of apparently normal, young subjects have premature ventricular complexes detected by continuous electrocardiographic recording, the number of recorded extrasystoles is usually very small. Adolescents or young adults free of heart disease generally have less than 100 premature ventricular complexes recorded in 24 hours and in most there are no more than five premature ventricular complexes in 24 hours. This degree of arrhythmia is unlikely to be detected by clinical examination or a routine electrocardiogram. In contrast, over 30% of middle-aged males have complex arrhythmias, and as many as 77% of subjects over 65 years of age exhibit complex patterns of ventricular arrhythmias. Therefore, finding ventricular extrasystoles during a routine office examination is not unexpected in an older population.

The prognosis of asymptomatic ventricular arrhythmias in patients who have normal hearts is almost always benign, as judged by epidemiologic studies. In addition, there is clinical evidence indicating that young patients free of identifiable heart disease who have ventricular tachycardia often have a benign long-term prognosis.[2] In older age groups, frequent or complex ventricular arrhythmias appear to increase the likelihood of finding underlying heart disease, but the arrhythmia itself does not predict an increased risk of sudden cardiac death.

It is recommended that the discovery of asymptomatic ventricular arrhythmias should first trigger a search for previously undetected heart disease. If there is no evidence of heart disease, then asymptomatic ventricular arrhythmias require no treatment. Occasionally, otherwise normal patients will complain of palpitations related to the arrhythmia. If it is established that the palpitation correlates with the arrhythmia, and that symptoms are not alleviated by elimination of stimulants such as caffeine or tobacco and reassurance of the patient that the findings are benign, then antiarrhythmic drug treatment may be indicated. In these instances it is reasonable to first prescribe treatment with beta-adrenergic blocking agents. Also, digitalis occasionally has been an effective antiarrhythmic drug in

From the Krannert Institute of Cardiology, Dept. of Medicine, Indiana University School of Medicine, and the Veterans Administration Medical Center, Indianapolis, Ind.

Supported in part by the Herman C. Krannert Fund, Indianapolis; by Grants HL-06308 and HL-07182 from the National Heart, Lung and Blood Institute of the National Institutes of Health, Bethesda, Md.; by the Attorney General of Indiana Public Health Trust; by the Roudebush Veterans Administration Medical Center, Indianapolis; and by a Grant-in-Aid from the American Heart Association, Indiana Affiliate, Inc., Indianapolis.

Correspondence: Krannert Institute of Cardiology, 1001 W. 10th St., Indianapolis 46202.

this setting. If the above measures are ineffective, then a standard antiarrhythmic, disopyramide, procainamide, or quinidine may be indicated. These latter agents have the potential to aggravate or precipitate severe ventricular arrhythmias and they have other frequent side effects during treatment. Therefore, the potential risk of the antiarrhythmic agent must be weighed against the potential benefit which, in this example, is relief of palpitation.

Ventricular tachycardia or ventricular fibrillation that produce hemodynamic compromise or cardiac arrest may occur in patients who have no identifiable heart disease. In our experience, approximately 15% of patients referred for treatment of recurrent ventricular tachycardia or ventricular fibrillation have had no apparent structural heart disease. Management of these patients requires hospitalization with continuous electrocardiographic monitoring and careful tailoring of an antiarrhythmic drug regimen to prevent recurrences of arrhythmia.

Ventricular Arrhythmia and the Mitral Valve Prolapse Syndrome

Mitral valve prolapse is a relatively common clinical syndrome. It may be accompanied by frequent and complex ventricular arrhythmias and there are instances of sudden cardiac death due to ventricular fibrillation.[3] Clinically significant ventricular arrhythmias occur in only a few patients who have mitral valve prolapse, while supraventricular arrhythmias are a much more common clinical problem in this syndrome.

It appears that ventricular arrhythmias often occur in the setting of abnormal repolarization changes on the electrocardiogram. These ECG abnormalities include ST segment shifts and T wave inversions, usually in the inferior leads, as well as occasional cases of QT interval prolongation. A causal relationship between mitral valve prolapse and ventricular arrhythmias has not been established. Attempts to quantify the degree of mitral valve prolapse and correlate the amount of prolapse with presence of arrhythmias have been inconclusive.

Antiarrhythmic drug treatment is indicated for patients who have symptomatic PVCs or ventricular tachycardia associated with mitral valve prolapse syndrome. Asymptomatic ventricular arrhythmias represent a more difficult management problem. Antiarrhythmic treatment is usually warranted when episodes of ventricular tachycardia are reproducibly present and in cases of QT interval prolongation, particularly if there is a family history of syncope or sudden death. Otherwise, asymptomatic PVCs occurring in patients who have mitral valve prolapse do not require treatment. When treatment is required, beta-adrenergic blocking agents are the drugs of first choice to prevent recurrence of arrhythmia and to relieve symptoms. Beta-adrenergic blocking drugs can usually be initiated in the outpatient setting. However, patients who have had sustained ventricular tachycardia, ventricular fibrillation or syncope are best managed by initial inpatient tailoring of a specific antiarrhythmic drug regimen.

Ventricular Arrhythmias and Cardiomyopathy

Ventricular arrhythmias occur frequently in dilated, congestive cardiomyopathy and hypertrophic cardiomyopathy. However, prognostic data concerning the risk of premature ventricular complexes in these patient groups are meager. In hypertrophic cardiomyopathy, approximately 50-80% of patients may have complex ventricular arrhythmias detected by 24-hour electrocardiographic recording, and often these arrhythmias are asymptomatic and unrelated to the degree of outflow obstruction.[4] The beta-adrenergic blocking drugs which are the usual treatment for obstructive forms of hypertrophic cardiomyopathy may not substantially decrease the frequency of complex arrhythmias. Complex ventricular arrhythmias including runs of nonsustained ventricular tachycardia are common in patients with dilated cardiomyopathy. The presence and severity of arrhythmia does not appear to correlate with the severity of hemodynamic function. Prognostic data have been inconclusive as to whether the presence of complex arrhythmias or ventricular tachycardia predict the occurrence of more severe forms of ventricular arrhythmia or sudden death in dilated cardiomyopathy.[5]

In the absence of definite prognostic data it is recommended that antiarrhythmic treatment be offered to patients who have symptomatic ventricular arrhythmias, a history of sustained ventricular tachycardia or ventricular fibrillation and for those who have nonsustained ventricular tachycardia regardless of symptoms. In this latter group it is important to judge the risk-benefit ratio of antiarrhythmic therapy on an individual basis as the side effects and risks of antiarrhythmic drugs may render drug treatment inappropriate for patients who have asymptomatic arrhythmias and severe, end-stage heart failure.

Most patients who have ventricular arrhythmias and dilated cardiomyopathy have evidence of left ventricular dysfunction such that disopyramide is usually not indicated. On the other hand, in hypertrophic cardiomyopathy, disopyramide has a potentially beneficial hemodynamic effect by decreasing the systolic outflow gradient and therefore may be a useful antiarrhythmic agent in this setting. Other than these considerations, the choice of a specific antiarrhythmic agent is empirical.

Ventricular Arrhythmias in Chronic Ischemic Heart Disease

Most of the studies which have attempted to identify the prognostic significance of PVCs in ischemic heart disease have focused on the post-infarction period. In one study of 1,739 men enrolled at a three to nine month interval following myocardial infarction, a one-hour recording of the electrocardiogram was obtained at entry.[6] Complex PVCs, defined as R on T, repetitive, multiform or bigeminal PVCs occurred in 462 of 1739 patients and of these 462 patients approximately 5% died suddenly by one year, 10% by 2 years and 15% by 3 years. Complex PVCs also significantly increased the risk of sudden death at 3 years and at 5 years of follow-up. The presence of congestive heart failure signified an increased risk

for cardiac death; however, complex PVCs and congestive heart failure were independent risk factors. Other studies have similarly found that complex PVCs were an independent risk factor for cardiac death and that other variables such as left ventricular function, a prior myocardial infarction and the presence of an anterior myocardial infarction were statistically, independent variables indicating an increased risk of death.[1]

The above-mentioned studies employed one and six-hour electrocardiographic recordings to identify PVCs. The rate of detection of ventricular arrhythmias increases with longer electrocardiographic recording times. If 24 hours of electrocardiographic recordings are performed at the time of hospital discharge for myocardial infarction, the great majority of patients exhibit ventricular arrhythmias. Therefore, the presence of frequent PVCs during 24 hours of electrocardiographic recording in post-myocardial infarction patients does not identify a high risk group for sudden death. The presence of more complex forms of ventricular arrhythmia on 24-hour electrocardiographic recording may have prognostic significance. In 430 patients who had a 24-hour recording prior to hospital discharge after acute myocardial infarction, ventricular tachycardia, defined as three or more consecutive PVCs, was present in 50 patients.[7] These 50 patients had a 38% mortality rate at one year of follow-up compared with an 11.6% fatality rate of a group without ventricular tachycardia. It should be noted that the group who manifested ventricular tachycardia also had a considerably higher prevalence of left ventricular dysfunction and concurrent use of digitalis and antiarrhythmic drugs. However, when controlled statistically for multiple other risk factors, including left ventricular failure, the finding of ventricular tachycardia at hospital discharge continued to have prognostic significance.

The above information may be summarized as follows:

First, ventricular arrhythmias are almost uniformly present in the post-infarction population. In a 24-hour electrocardiographic recording, complex forms of ventricular arrhythmia, particularly ventricular tachycardia (three or more consecutive PVCs) have a statistical association with cardiac mortality. However, most patients (at least 60%) who manifest these asymptomatic arrhythmias survive during as long as 5 years of follow-up.

Second, while complex ventricular arrhythmias are statistically an independent risk factor for cardiac death, the long-term prognosis following myocardial infarction is intimately related to the extent of left ventricular dysfunction, extent of coronary disease, age and other risk factors.

Third, since multiple factors contribute to the risk of sudden cardiac arrest following myocardial infarction, it is apparent that no single factor, such as PVCs, can be assumed to be the sole cause.

Results of Antiarrhythmic Drug Trials

Based on the observation that ventricular arrhythmias during the post-infarction period are one of the factors contributing to an increased risk of cardiac death, it may be postulated that antiarrhythmic drug treatment would prevent sustained ventricular tachycardia or ventricular fibrillation and reduce the incidence of cardiac death. Clinical antiarrhythmic drug trials conducted in patients recovering from myocardial infarction have employed treatment with phenytoin, tocainide, mexiletine and aprindine, and these results have been recently reviewed.[8] None of these drugs have been shown to significantly improve the mortality in the drug-treated population versus the untreated population. When the effects of the antiarrhythmic drug on the occurrence of arrhythmia were examined, the drug-treated population did have a lower incidence of ventricular arrhythmia. Most prominently, there often was a high prevalence of limiting side effects in the drug-treated population. Despite a decrease in ventricular arrhythmia in the treated population, there was not a beneficial effect in preventing death in the follow-up period after myocardial infarction. Furthermore, the broad application of antiarrhythmic drug therapy is not feasible due to the high prevalence of limiting side effects and the individual variation in antiarrhythmic drug response.

Current Investigation

More precise methods are needed to identify patients at risk for developing ventricular tachycardia and ventricular fibrillation following myocardial infarction. Intracardiac electrophysiologic studies using programmed electrical stimulation have been employed to guide antiarrhythmic therapy in patients who had recurrent ventricular tachycardia or ventricular fibrillation. These techniques involve the introduction of one or more ventricular extrastimuli in an effort to induce a ventricular tachyarrhythmia. Several preliminary studies have suggested that the induction of ventricular tachycardia during electrophysiologic study in the post-infarction period identifies a subset of patients having a significantly decreased survival during follow-up. In one study, ventricular tachycardia was induced at electrophysiologic study in 38 of 165 (23%) patients recovering from myocardial infarction.[9] During a 12-month follow-up, the mortality rate was 25% in patients who had inducible arrhythmia compared to 5% of the non-induced group. These initial studies have provoked considerable interest in defining the role of electrophysiologic study to identify patients at increased risk for developing ventricular tachycardia and ventricular fibrillation following myocardial infarction.

Another area of continuing investigation is the use of the amplified, signal-averaged electrocardiogram. Preliminary evidence suggests that the presence of low-amplitude electrical potentials in the late portion ofthe QRS complex indicates an increased prevalence of ventricular tachyarrhythmias in the post-infarction period.[10] While these methods remain investigational, there is promise that they may provide new insights into the identification and management of patients following myocardial infarction.

Current Recommendations

Given our present state of knowledge and expertise, the following general recommendations can be made. First, not all patients who have premature ventricular complexes following myocardial infarction require antiarrhythmic drug treatment. Second, clear-cut indications for antiarrhythmic drug therapy include patients who have sustained ventricular tachycardia or ventricular fibrillation during the post-infarction period and patients who have symptomatic arrhythmias. Third, treatment of the patient recovering from myocardial infarction must include optimization of left ventricular function, relief or ischemia, and modification of lifestyle, as well as any indicated antiarrhythmic drug treatment.

The following more specific recommendations seem reasonable at the present time. During recovery from myocardial infarction each patient should have a careful assessment of spontaneous arrhythmias by means of continuous electrocardiographic telemetry monitoring while the patient is ambulatory. Selected patients, particularly those who exhibit frequent or complex ventricular arrhythmias by telemetry, should have a 24-hour recording of the electrocardiogram. Regardless of symptoms, it is recommended that the presence of ventricular tachycardia, defined as three or more consecutive ventricular complexes, is usually an indication for antiarrhythmic therapy while isolated PVCs are not usually an indication for antiarrhythmic therapy. Admittedly, these distinctions are arbitrary but have some foundation in the prognostic data presented earlier. Each patient should have a careful assessment of functional status during the ambulatory phase following myocardial infarction. This can often be performed by clinical examination alone. In certain cases, additional studies, such as cross-sectional echocardiography, radionuclide ventriculography and low-level exercise testing may assist in this assessment. On the basis of these evaluations, an optimal therapeutic regimen that may include diuretic, nitrate, vasodilator or digitalis therapy can be formulated. Finally, several large, well-controlled clinical trials have documented that the beta-adrenergic blocking drugs reduce mortality by 20-30% during up to three years of follow-up after myocardial infarction. The mechanism of this beneficial effect is unknown. If there are no contraindications to the use of beta-adrenergic blocking drugs, then treatment should begin early in the post-infarction course. The major contraindications to beta-adrenergic blocking drugs are the presence of overt congestive heart failure and symptomatic chronic obstructive lung disease.

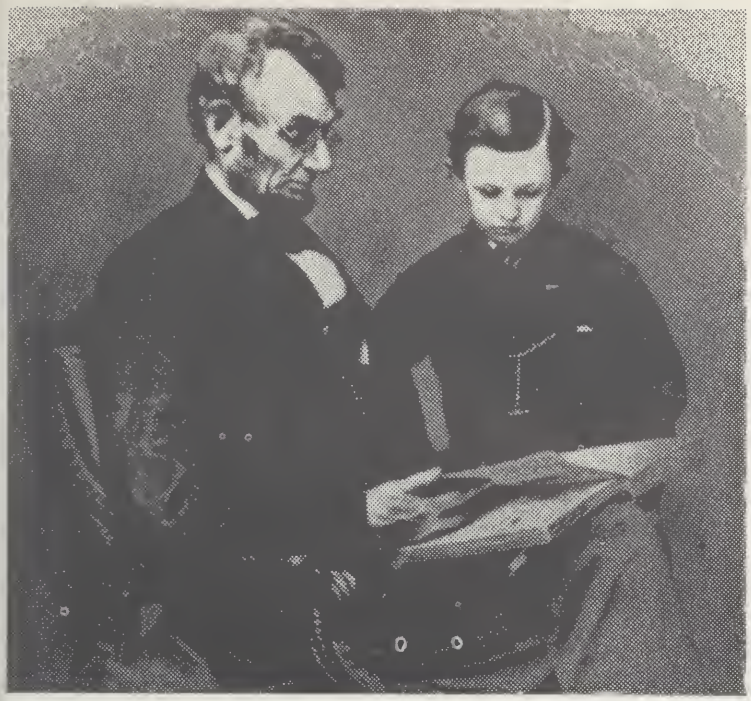
General Principles of Antiarrhythmic Drug Therapy

If antiarrhythmic drug therapy is indicated, several considerations must guide their use. The immediate end point of treatment is the elimination of the observed arrhythmia. Therefore, treatment must be carefully tailored to achieve this end point while minimizing adverse side effects. It is clear from the studies mentioned in preceding sections that the routine use of antiarrhythmic drugs does not reduce mortality following myocardial infarction. In addition, all antiarrhythmic drugs, including the investigational agents, have the potential to exacerbate or potentiate arrhythmia. A successful drug regimen is one in which an effective antiarrhythmic agent is administered in a dosage which provides continuous suppression of the arrhythmia without limiting side effects. Plasma drug concentrations are rarely necessary to judge whether antiarrhythmic treatment has been successful and should not be the sole determinant of the drug dosage employed. Plasma drug concentrations are useful to confirm that adequate dosages of a drug have been given and that a therapeutic failure has not been due to inadequate dosage. Additionally, the plasma drug concentrations are useful to evaluate for possible toxicity, to determine whether a patient has complied with the dosage schedule, to alter dosage schedules during fluctuating physiological conditions, e.g., changing renal function, and in cases where there are potential drug interactions.

It is apparent that our current state of knowledge of the prognosis, diagnosis and therapy of ventricular arrhythmia is limited. While the precise method to prevent unexpected cardiac death remains an enigma, the unanswered questions provide impetus for continued investigation. No specific recipe suffices for management of patients who have ventricular arrhythmia. In the meantime, the clinician must evaluate critically the available information in formulating the best clinical plan for care of his or her patients.

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Airway and Ventilator Management of the Head Injured Patient

Critical Care Medicine

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Indianapolis

Tracheal intubation and inappropriate ventilator management can cause life-threatening elevation of the ICP in head injured patients . . .

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THE HEAD INJURED PATIENT requires special considerations in airway management and ventilator manipulation particularly in the presence of increased intracranial pressure (ICP). Adequate oxygenation must be ensured since hypoxia (P_aO_2 < 50 mmHg) stimulates cerebral arteriolar vasodilation which in turn causes increased cerebral blood (CBF), cerebral blood volume (CBV), and ICP (*Fig. 1*). These deleterious trends are further exacerbated by the presence of hypercapnia (P_aCO_2 > 40 mmHg) due to hypoventilation, and hypotension associated with other injuries. Preservation of normal cerebral metabolism thus requires adequate oxygenation, ventilation, and hemodynamic stabilization in order to maintain a sufficient cerebral perfusion pressure (CPP) of at least 60 mmHg.[1] [CPP = Mean Arterial Pressure (MAP) − ICP.]

Airway Management

Most head injured patients require establishment of an airway either for provision of ventilation and oxygenation or for protection of the airway in the comatose state. Tracheal intubation is accomplished via the nasotracheal or orotracheal route and there are advantages and disadvantages to each. Nasotracheal intubation is contraindicated[2] in the presence of a basilar skull fracture in view of the risk of passing the tracheal tube (or nasogastric tube) directly into the brain through a potentially disrupted cribriform plate (*Fig. 2*). Basilar skull fracture is difficult to demonstrate radiographically and its clinical diagnosis is suspected on examination with the presence of Battle's sign, cerebrospinal fluid rhinorrhea or otorrhea, hemotympanum or the presence of blood in the external ear canal. Nastotracheal intubation is also contraindicated in the presence of major facial fractures, nasopharyngeal hematomas and with the existence of a coagulopathy and its risk of uncontrollable epistaxis.

On the other hand, patients with cervical spine injuries are more safely intubated nasotracheally, though this may require passing the tube over a fiberoptic flexible bronchoscope. Disadvantages of nasotracheal intubation include risks of sinusitis, otitis, and epistaxis. Additionally, the small size tube (7.5 mm or less) passed through the nose often impedes passage of suction catheters during pulmonary toilet, and is associated with higher airway resistance during ventilation. Orotracheal intubation is advantageous since it can be more rapidly performed, and its larger tube facilitates airway suctioning and bronchoscopy if needed. The larger tube allows lower airway resistances during mechanical ventilation as well. Most female patients should receive a size 8.0 mm tube and males should be intubated with size 8.5 - 9.0 mm. Disadvantages of the orotracheal tube relate to the stress of the procedure causing a rise in the patient's ICP and blood pressure. The tube is less stable in position and may slide inferiorly into a mainstem bronchus.

Intubation with Muscle Relaxant Drugs

Care must be taken during tracheal intubation to minimize the rise in ICP associated with the stress of the pro-

cedure, and this often can be accomplished with the use of sedative-hypnotics, lidocaine, and muscle relaxant drugs. Often the patient is combative and disoriented and the physician frequently is unable to open the patient's mouth; also, during the intubation attempt the patient may cough, buck or gag. All these difficulties serve to raise the ICP in the head injured patient. The experienced physician should consider "rapid sequence intubation" with neuromuscular blockade as follows:

1. Thiopental 3-6 mg/kg IV or Valium 5-10 mg IV (if patient awake)
2. d-tubocurarine 3 mg IV (two minutes before succinylcholine given)
3. Lidocaine 1.5 mg/kg IV (90 seconds before intubation)
4. Succinylcholine 1.5 mg/kg IV

This sequence of premedication will produce paralysis for three-eight minutes and will facilitate non-traumatic intubation with minimal rise in the ICP. The thiopental or Valium may be omitted if the patient is comatose. Intravenous Lidocaine has been shown to be more effective in preventing intracranial hypertension after intubation than topical Lidocaine spray into the pharynx (*Fig. 3*).

Succinylcholine (Anectine) is a depolarizing muscle relaxant which has significant adverse effects: a) muscle fasciculations and muscle pain, b) risk of regurgitation due to increased gastric pressure, and c) hyperkalemia. These effects are blunted by giving a low premedicating dose of curare, a non-depolarizing agent, and hence its inclusion in the rapid sequence drug regimen. However, if the patient has experienced significant muscle crush injury during the accident, the risk of hyperkalemia is high and the use of succinylcholine should be avoided. The advantage of succinylcholine lies in its short duration of action.

If it is elected *not* to use succinylcholine in the regimen, then the low dose premedication with curare should be omitted and instead full doses of one of two non-depolarizing agents may be chosen, e.g., pancuronium or d-

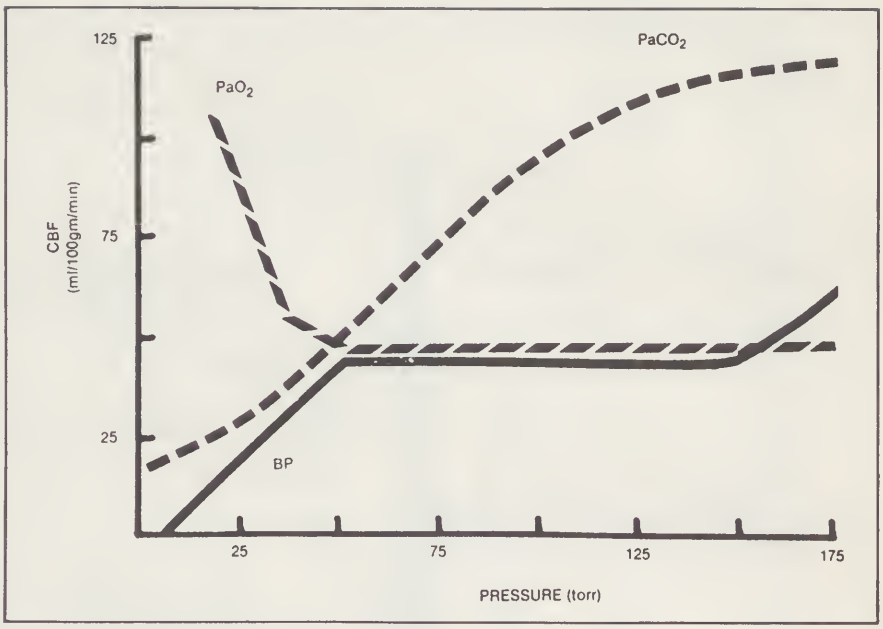


FIGURE 1: The effect of blood pressure, P_aO_2, and P_aCO_2 on CBF in normal brain.

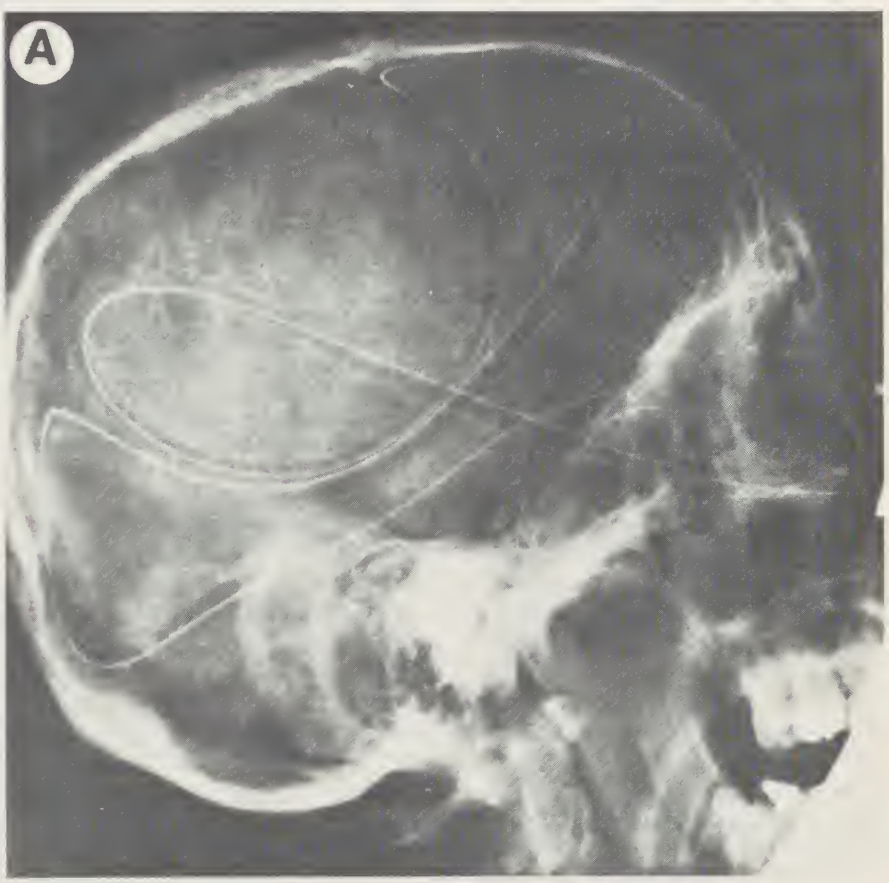


FIGURE 2

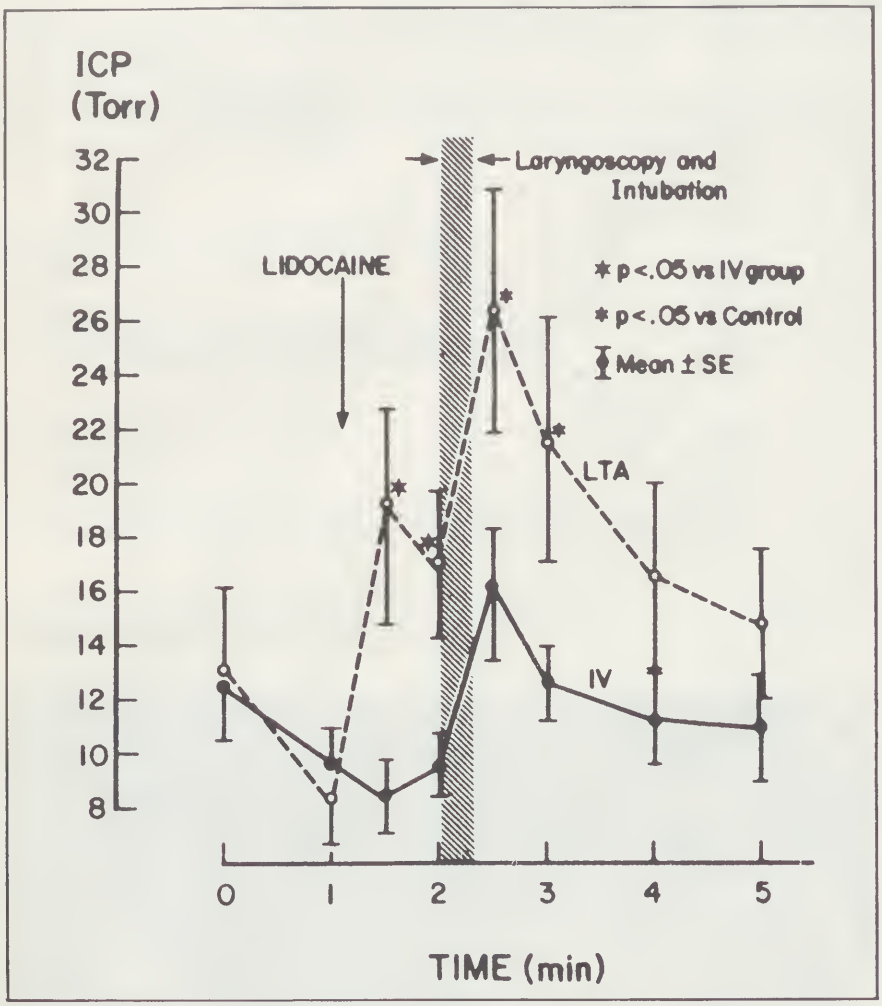


FIGURE 3: ICP response to laryngoscopy and endotracheal intubation after administration of either laryngotracheal or intravenous lidocaine. No increase in ICP occurred after IV lidocaine, whereas direct instillation of lidocaine into the trachea caused a significant increase in ICP and did not prevent elevated ICP after intubation.

tubocurarine, depending on the patient's blood pressure. If the patient is hypertensive then d-tubocurarine (curare) 6-9 mg IV would be preferred by taking advantage of its mild hypotensive side effects. Conversely, if the patient were hypotensive, pancuronium (Pavulon) .04-.08 mg/kg IV could be selected in view of its sympathomimetic effects of hypertension and tachycardia. Both of the nondepolarizing drugs can be partially reversed with anti-cholinesterase drugs such as neostigmine or edrophonium (Tensilon).

It should be emphasized that neuromuscular paralysis should be performed by experienced physicians, as inability to intubate the paralyzed patient would be disastrous. Difficult intubation can be expected in patients with a short, fat neck, with pharyngeal hematomas, or with traumatically altered oropharyngeal anatomy; and in these situations neuromuscular blockade should be avoided, with strong consideration given to introducing the tracheal tube over a flexible fiberoptic bronchoscope.

Benefits of Hyperventilation

Intracranial hypertension in the head injured patient can be reduced by inducing hypocapnia through hyperventilation.[3] Hypocapnia (low P_aCO_2) induces cerebral arteriolar vasoconstriction resulting in reduction of CBF, CBV and ICP. Hypocapnia reduces CBF 2-4% for every mmHg reduction in the P_aCO_2 down to approximately 25 mmHg. Further reduction in the P_aCO_2 with hyperventilation has less benefit and may reduce CBF so severely as to limit cerebral oxygenation and cause cerebral tissue lactic acidosis and EEG slowing. It is recommended to maintain the P_aCO_2 in the 25-30 mmHg range for reduction of the ICP. This effect is therapeutically advantageous only for approximately 24 hours since renal mechanisms will compensate for the respiratory alkalosis within 24-48 hours, thus returning the cerebral tissue pH towards normal and allowing the cerebral vasomoter tone to relax. Since hyperventilation is reserved for the *acute* management of intracranial hypertension it must be combined with other modes of therapy such as mannitol, furosemide, steroids, intraventricular CSF drainage, barbiturates, or neurosurgery to achieve prolonged reduction of the ICP.

Hyperventilation may also have a beneficial effect on the blood supply to the injured brain tissue. Ischemia in the injured area causes a zone of vasomotor paralysis in which the vessels are already maximally dilated. When the P_aCO_2 is high, vessels in this ischemic area cannot dilate further and a condition of intracerebral "steal" results: blood is shunted *away* from the ischemic zone to areas of normal brain where vessels have dilated in response to the elevation in P_aCO_2. Conversely, when the P_aCO_2 is low through hyperventilation, the "Robin Hood" phenomenon or "reverse steal" causes blood to go from areas of normally perfused brain where the vessels can constrict in response to hypocapnia to the zone of vasomotor paralysis in which the vessels do not respond to changes in P_aCO_2.

Techniques of Hyperventilation

Often head injured patients are already hyperventilating and the P_aCO_2 is in the range of 25-30 mmHg. In this case no additional therapy is required. However, if

the patient exhibits severe central hyperventilation, often accompanied by marked decerebrate or decorticate posturing and muscle activity, then muscle relaxants are indicated along with controlled mechanical ventilation. In this case the ventilator rate is adjusted to maintain the P_aCO_2 in the 25-30 mmHg range. The posturing and extreme muscle activity must be eliminated as it exacerbates intracranial hypertension and also results in excessive caloric consumption. Extreme hypocapnia frequently results in a high plasma pH which can predispose to malignant ventricular arrhythmias and clinically significant hypophosphatemia. Most patients though will be mildly hypercapneic on admission after their accident, thus requiring mechanical ventilation.

When the patient is mechanically ventilated, the mode of intermittent mandatory ventilation (IMV) should be selected whenever possible as opposed to the assisted or controlled modes.[4] With IMV the patient receives a preset number of breaths at a preset tidal volume, but is allowed to breathe spontaneously between mandatory breaths at a rate and tidal volume that are voluntarily generated. Although IMV was originally introduced as a method of weaning patients from the ventilator, it has become a widely accepted mode of primary ventilatory support and has advantages over assisted or controlled modes. It is a more physiologic method of ventilation and preserves spontaneous ventilation.

The IMV mode preserves the relatively negative intrapleural pressures compared with positive intrathoracic pressures generated by the assist/control modes. The maintenance of relatively negative intrathoracic pressures reduces the effect of mechanical ventilation on the ICP, cardiac output and blood pressure, and reduces the incidence of barotrauma.

If positive end-expiratory pressure (PEEP) is also applied in the treatment of associated lung injury, the risk of PEEP causing a rise in the ICP is also minimized in the IMV mode. The ventilator rate in the IMV mode should be adjusted to maintain the P_aCO_2 in the 25-30 mmHg range. The tidal volume should be set at 10-15 ml/kg. The FiO_2 should be sufficient to generate at least 90% oxygen saturation as confirmed by arterial blood gases. The ventilator flow rate should be set at 35-45 liters/min. unless the patient is hyperventilating and requires higher inspiratory flow rates, bearing in mind that higher flow rates produce turbulant gas flow, increased airway resistance, and consequently peak airway pressures which are higher than desirable. The pressure limit on the ventilator should be set at 10 cm H_2O greater than the peak airway pressure, recognizing that peak airway pressures greater than 60 cm H_2O are associated with increased barotrauma. PEEP at 5 cm H_2O is physiologic and should be employed prophylactically to help prevent atelectasis.

Within the first 24 hours of mechanical hyperventilation for intracranial hypertension, an attempt should be made to reduce the ventilator rate gradually while monitoring the ICP in anticipation of renal compensation for the iatrogenic respiratory alkalosis. If other concommitant modes of therapy for increased ICP have been successful, then ideally the patient may be allowed to return to normocapnia, thus reserving further hyperventilation for acute rises in the ICP in the course of his intensive care. In the event that the ICP rises during this attempted reduction of hyperventilation, the hypocapnia may need to be continued albeit at lower P_aCO_2[5] levels, e.g., 20-25 mmHg, to achieve a new steady state after renal compensation as long as the plasma pH is not allowed to reach 7.60. The need for continuous hyperventilation beyond 24 hours usually portends a poor prognosis for the head injury.

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Prophylaxis of Contacts of Patients with Meningococcal Infection

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Meningococcal Infection and Prophylaxis— The Facts Behind the Recommendation . . .

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THE RISK OF invasive meningococcal infection among close contacts of a patient with meningococcal infection exceeds that of the general population.[1] To reduce this risk antibiotic chemoprophylaxis to eliminate nasopharyngeal carriage and, ultimately, invasive infection is recommended for all close contacts of the index case.[2] Failure of chemoprophylaxis to prevent invasive infection may result from delayed treatment, poor compliance, failure of the antimicrobial to eradicate the carrier state or acquisition of the pathogen from a non-household source.[1,3]

The objectives of this report are to 1) present and discuss a case of apparent "failure" of chemoprophylaxis to prevent invasive infection in a household member; 2) review the evidence supporting the use of chemoprophylaxis for contacts of patients with meningococcal infection; and 3) review selected antimicrobial susceptibility patterns of *Neisseria meningitidis* strains that have been isolated from patients with invasive infection referred to the Indiana University Medical Center.

Case No. 1

A normal 10-month-old boy developed fever and progressive lethargy several hours before arrival at a local emergency room. When seen he was unresponsive, hypotensive and had a purpuric rash. He required immediate ventilatory assistance and emergency measures to re-establish adequate blood pressure. A blood culture was quickly obtained and intravenous ampicillin (300 mg/kg/24h) and chloramphenicol (100 mg/kg/24h) were given immediately. The cerebrospinal fluid (CSF) was normal and bacteria were not seen with Gram stain.

Twelve hours after admission the patient was transferred to the James Whitcomb Riley Hospital for Children. Gram-negative intracellular and extracellular diplococci were seen in fluid obtained from a purpuric skin lesion. During the next two days he developed generalized seizure activity, severe myocarditis, disseminated intravascular coagulopathy, and acute renal failure. He failed to respond to treatment and died 86 hours after the onset of symptoms. Cultures of blood and CSF obtained prior to treatment and all subsequent cultures were sterile. Both parents and a 32-month-old sister were the only other household contacts and all were treated with rifampin, 10 mg/kg/24h, in a single daily dose for four days.

Case No. 2

The 32-month-old sister developed fever and irritability 10 weeks after the onset of illness of the index case. During an 18-hour period she became lethargic and developed a petechial rash and was taken to her local hospital. The CSF cell count was 1,600 WBC/mm^3, glucose concentration 36 mg/dl, protein concentration 48 mg/dl and a smear contained Gram-negative diplococci. Intravenous ampicillin (300 mg/kg/24h) and chloramphenicol (100 mg/kg/24h) were begun. Within three hours after admission she developed grand mal seizures and was transferred to Riley Hospital.

Seizures were controlled with intravenous phenobarbital. There was no abnormality of cardiovascular function, and clotting studies were normal. Cultures of blood and CSF grew *N. meningitidis*, serogroup B. She received intravenous ampicillin for 10 days and was normal when discharged 12 days after the onset of symptoms. Tests of complement function early in the hospital course were inconclusive and the patient was lost to follow-up.

The *N. meningitidis* isolate was sen-

sitive to rifampin. Household members were given rifampin chemoprophylaxis beginning on the day of admission. The patient was treated with rifampin prior to discharge; *N. meningitidis* was not recovered from cultures of the nasopharyngeal secretions of either parent at the time of hospital discharge.

One month later the child developed fever and a petechial rash. She was seen by her physician and a blood culture was sterile. The nasopharyngeal secretions of both parents were again cultured and each grew *N. meningitidis*, which was ungroupable. The parents and child were again given rifampin chemoprophylaxis.

TABLE

Distribution of serogroups of *Neisseria meningitidis* and sulfadiazine resistance at Indiana University Medical Center from January 1978 to June 1983

Serogroup	No. Resistant* (Total (%))
B	2/22 (9)
C	6/9 (67)
W135	1/10 (10)

*Resistance = MIC > 10 ug/ml

Discussion

The risk of invasive infection in close contacts of an index case is 200 to 1,000 times greater than that of the general population.[1] However, adults who acquire *N. meningitidis* usually develop asymptomatic nasopharyngeal carriage, which may persist for several weeks or months. In a study of "normal families" observed for 32 months[4] the prevalence of nasopharyngeal carriage varied from 4.9 to 10.6%. The median duration of carriage was 9.6 months. Acquisition among family members was slow, and Greenfield calculated that a non-carrier had a 50% chance of escaping carriage although exposed for as long as five years.[4]

Factors that determine whether an individual exposed to *N. meningitidis* will become an asymptomatic nasopharyngeal carrier or develop invasive disease include age, intensity of exposure, integrity of the immune system, function of the complement system, presence of bactericidal antibody, strain specific virulence, and other as yet undetermined host characteristics.[5] Carriers are themselves at less risk for developing invasive disease than non-carriers.[6] Antibody to *N. meningitidis* appears to play an important role in preventing invasive infection. Goldschneider found that children and military recruits without serum bactericidal antibody to *N. meningitidis* were most susceptible to invasive infection.[6]

Conversely, invasive infection was unlikely to occur in individuals with serum bactericidal antibody. Nasopharyngeal carriers developed bactercidial antibody to the homogolous serogroup of *N. meningitidis* and some cross-reacting antibody to heterologous serogroups (Goldschneider). Colonization with *N. lactamica* has also been shown to result in development of antibody which cross-reacts with *N. meningitidis*.[7]

There have been no controlled prospective studies which have demonstrated that chemoprophylaxis prevented secondary infection in a nonepidemic setting. In a study of endemic (sporadic) infection, the Meningococcal Disease Surveillance Group examined the incidence of secondary infection among close contacts. A "secondary case" was defined as infection in a household member with disease onset more than one day but less than 31 days after hospitalization of the index patient. There were no secondary cases observed among 693 family contacts promptly given effective prophylaxis, while five cases occurred among 1,179 contacts given inadequate chemoprophylaxis.[1] Although the difference was not statistically significant, it was concluded that "the risk of secondary cases among household contacts of persons with meningococcal disease probably justifies the use of chemoprophylaxis."[1]

Sulfadiazine was the first antimicrobial found effective for eradication of nasopharyngeal carriage of *N. mengitidis*.[8] The increasing frequency of sulfadiazine-resistant meningococci led to a search for other effective agents[9] in the early 1960s. Penicillin, ampicillin, erythromycin and oxytetracycline failed to eradicate carriage.[3] Minocycline was effective but its use was limited by undesirable side effects. In a double-blind, placebo-controlled study, rifampin eliminated *N. meningitidis* in 92-97% of asymptomatic nasopharyngeal carriers.[3,10]

Rifampin is currently the antimicrobial agent recommended for chemoprophylaxis. Rifampin resistance has not been a significant problem. In 1980 fewer than 0.2% of blood and CSF isolates were resistant to rifampin (Reingold, AL, personal communication). We examined the antimicrobial sensitivity patterns of 41 isolates of *N. meningitidis* recovered from patients at IUMC or submitted to the IUMC clinical laboratory for identification, serogrouping, and/or antimicrobial sensitivity testing. All patients resided in Indiana. Using agar dilution techniques, all isolates were sensitive to rifampin (MIC $\leq$ .25 ug/ml)[11]. Sulfadiazine resistance was found in 9/41 (22%) of isolates (MIC > 10 ug/ml). The distribution of serogroups among the isolates tested showed 22 (55%) serogroup B, 9 (22%) serogroups C and 10 (23%) serogroup W 135 (*Table*). Serogroups B, C, Y and W135 are most frequently recovered from endemic cases in the United States. Six of nine (67%) serogroup C isolates were resistant to sulfadiazine. Sulfadiazine resistance among serogroup C isolates has been observed by others.[12]

Meningococcal polysaccharide vaccines against serogroups A, C, Y and W135 are available and effective but have a limited place for prophylaxis of endemic infection. At least 50% of secondary cases occur within five days of disease onset of the index case and therefore earlier than vaccine-induced antibody can be expected to develop. Immunization therefore is not a substitute for chemoprophylaxis but should be used as an adjunct for disease prevention. Another major disadvantage is the unavailability of a vaccine for serogroup B, the etiology of the infection

in Case 2 and the most common cause of endemic meningococcal meningitis in the U.S. Children younger than two years who respond poorly to polysaccharide vaccines in general do not develop antibody to serogroup C vaccine.[13] Serogroup vaccine A stimulates the production of bactericidal antibody in children six months of age and older.

In light of the foregoing discussion, the apparent failure of chemoprophylaxis in the case discussed can be placed in context. First, the interval between the two infections exceeded the observation period used in most studies of chemoprophylaxis.[1] There are no studies that show chemoprophylaxis diminished the risk of invasive infection 2½ months later. Further, the second child may have acquired infection from a non-household source rather than from a family member for whom chemoprophylaxis was ineffective. Since all of the isolates examined in our survey, including that from Patient 2, were sensitive to rifampin, drug resistance was not likely.

One of the most important means of preventing serious morbidity among household contacts is to request that any contact with fever seek immediate medical care. The Committee on Infectious Diseases of the American Academy of Pediatrics and the Centers for Disease Control currently recommend rifampin, 10 mg/kg/dose (maximum 600 mg) every 12 hours for two days for chemoprophylaxis of close contacts of patients with invasive meningococcal disease. Contacts include those "who frequently eat and sleep in the same dwelling as the index case."[12] This definition includes contacts in a nursery school or day-care center. Persons exposed through mouth-to-mouth resuscitation or kissing or other intimate contact should also receive chemoprophylaxis.

Since eradication of carriage may lessen the likelihood of spread to susceptible non-carriers, nasopharyngeal cultures are unnecessary since carriers and non-carriers require chemoprophylaxis. Optimal chemoprophylaxis of household contacts would be expected to prevent only 1 to 2% of meningococcal disease.[14] Vaccines should be used as an adjunct to, not a substitute for, antimicrobial prophylaxis of endemic (sporadic) meningococcal infection. Vaccines have the greatest potential benefit for use in prevention of epidemic meningococcal infection.

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Fatal Spontaneous Retroperitoneal Hemorrhage in a Patient with von Recklinghausen's Disease

A Case Report

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The author discusses an unusual fatal outcome of a patient with neurofibromatosis . . .

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On February 14, 1980 a 59-year-old white man was admitted to Good Samaritan Hospital, Vincennes, with an acute asthmatic attack. He had a long history of asthma and chronic lung disease and had had numerous attacks in the past. In the preceding six months he had some bleeding into a fibroma arising from the neural sheath of the left ulnar nerve. This hemorrhage led to a partial paralysis of the left hand.

On February 16, he bled into a large fibroma which was located just above the elbow on the right arm. Coagulation studies were normal. A fasciotomy was performed but the bleeding continued. A below-the-shoulder amputation was subsequently required.

After the amputation the patient did relatively well until December 19, 1982 when he again had an asthmatic attack requiring hospitalization. On December 25 the patient complained of dyspnea. He was very pale. His hemoglobin was 7.2. He was given two units of packed cells. By the 26th he appeared stable with a hemoglobin of 10.1. That evening he suddenly complained of back pain and had a cardiac arrest. Resuscitation was successful and he was operated upon. A large retroperitoneal hemorrhage was found in and around a large fibroma located retroperitoneally.

The patient died four hours after surgery.

Discussion

Approximately 100 years ago von Recklinghausen described the disease that bears his name. It is an autosomal dominant trait which is relatively common, occurring once in 3,000 live births. Over 90% of those affected have five cafe ou lait spots, usually over 1.5 cm. in diameter. The tumors that arise from the neural sheath usually do not appear until after puberty.

The tumors are of two types: (1) small dome-shaped dermal lesions and (2) larger subcutaneous tumors, which appear along the course of any nerve in the body. There is also a higher than expected incidence of mental retardation. About 50% of the cases appear spontaneously.

A search of recent literature (since 1970) reveals no cases of two separate hemorrhages as described above. In fact, only one case of fatal retroperitoneal hemorrhage was found. None has been reported in the United States.

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Fatal Acetaminophen Toxicity in a 2-Year-Old

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Abstract

A 2-year-old develops fatal hepatotoxicity following an iatrogenic overdose of acetaminophen. Acetaminophen toxicity is relatively rare in infants and young children although the exact reason is unknown. The pharmacology of acetaminophen is reviewed. Successful management may be initiated within 16-24 hours post-ingestion. Recent changes in antipyretic usage in children underscore the importance of proper administration of acetaminophen as well as appropriate management of an overdose.

Key Words: Acetaminophen; poisoning

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ACETAMINOPHEN (paracetamol) is an antipyretic/analgesic commonly substituted for aspirin. Hepatotoxicity has been well described in cases of acute overdosage.[1,2] Some authors feel that infants and young children may be protected from acetaminophen toxicity by age-related differences in metabolic degradation.[3,4] Unfortunately, acetaminophen toxicity does occur in young children and is occasionally iatrogenic.[5,6] Recent statements warning against the use of aspirin in infants and young children underscore the need to familiarize the practicing physician with the proper administration of acetaminophen as well as with the diagnosis and management of an overdose.[7,8,9]

Case Report

A 2-year-old white girl was well until six days prior to admission when she developed fever, vomiting and two generalized seizures. She was seen by her family physician, who prescribed acetaminophen suppositories for antipyresis. The mother of the patient worked in a nursing home where acetaminophen suppositories were available. The patient received a suppository containing 650 mg of acetaminophen every four hours for approximately 70 hours—a total of 17 doses. She appeared well one day prior to admission but became lethargic and disoriented on the morning of admission. She was taken to the local emergency room. She was found to have an aspartate aminotransferase (AST) of 30,000 IU/1 and an alanine aminotransferase (ALT) of 10,000 IU/1. The acetaminophen level, greater than 24 hours after the last dose of acetaminophen, was 25.8 mcg/ml. She was transferred to the James Whitcomb Riley Hospital for Children-Indiana University Medical Center for further evaluation and management of hepatic failure.

At the time of admission, the patient was comatose and responsive only to deep pain stimulation. Her pupils were reactive to light, and funduscopic examination was unremarkable. Abdominal examination revealed a firm liver margin 4 cm below the right costal margin in the right midclavicular line. There was no splenomegaly nor ascites; there were no abdominal masses. Her sclerae and skin were anicteric. There were no stigmata of chronic liver disease.

Laboratory data on admission included a hemoglobin of 13.9 gm/dl, hematocrit 40.1%, white blood cell count 4,800 cells/mm^3 with 3% bands, 70% polys, 27% lymphocytes, and the platelet count was 229,000/mm^3. Serum sodium was 139 mEq/1, potassium 3.8 mEq/1, chloride 103 mEq/1, bicarbonate 9 mEq/1, BUN 21 mg/dl, creatinine 2.0 mg/dl, glucose 30 mg/dl, and amylase 134 IU/1. AST was 26,840 IU/1, ALT 10,000 IU/1, prothrombin time 47.5 seconds, partial thromboplastin time 46.5 seconds, total bilirubin 3.4 mg/dl with direct fraction of 2.6 mg/dl and indirect 0.8 mg/dl, albumin 4.0 gm/dl and plasma ammonia 205 uMol/1. The acetaminophen level was 27 mcg/ml approximately 48 hours after the last dose. Urinalysis and cerebrospinal fluid examination were normal.

The patient was begun on supportive management with intravenous fluids containing concentrated glucose. The prolonged prothrombin time was corrected to 18 seconds with vitamin K and fresh frozen plasma. An emergency head CT scan revealed no cerebral edema or hemorrhage. The patient's liver decreased in size on the second day of hospitalization. She also developed hypotension and respiratory distress, and required a continuous infusion of dopamine

and mechanical ventilation. Oliguria progressed to anuria unresponsive to fluid challenges and furosemide.

The patient's condition deteriorated further on the third day of hospitalization with the development of severe hypotension requiring isoproterenol and dopamine. She developed hypothermia and hyperglycemia acutely. Her pupils were midpoint and nonreactive, and there was no evidence of brain function. EEG was isoelectric. All life support systems were discontinued once the patient met the criteria for brain death. Postmortem examination was performed and revealed massive centrilobular hepatic necrosis (*Fig. 1 and 2*), acute renal tubular necrosis and moderate cerebral edema.

Discussion

Acetaminophen is a derivative of paraaminophenol and is similar to phenacetin. Initial reports of hepatotoxcity appeared in 1966.[10] Self-induced acetaminophen overdose became common in Great Britain but never reached the same magnitude in this country. Several investigators have observed a relative paucity of acetaminophen toxicity in children less than 6 years of age, although four fatalities have been reported.[3,11,12]

Acute acetaminophen overdose has a fairly typical presentation. The patient may exhibit anorexia, nausea, vomiting and diaphoresis during the first 24 hours. Clinical improvement invariably occurs. Biochemical abnormalities are evident 48-72 hours post-ingestion. There is often profound elevation of the serum aminotransferases due to hepatocellular necrosis. Hypoprothrombinemia and hypoglycemia are common. There is only modest hyperbilirubinemia and elevation of the serum alkaline phosphatase. Extensive centrilobular necrosis without steatosis or significant inflammation are observed histologically. Death from fulminant hepatic failure may occur 4-18 days after ingestion.[1] Hepatic histology returns to normal in survivors within three months.[13] Acute tubular necrosis and myocardial necrosis have been described.[1]

The pharmacology of acetaminophen overdose has provided a sound basis for

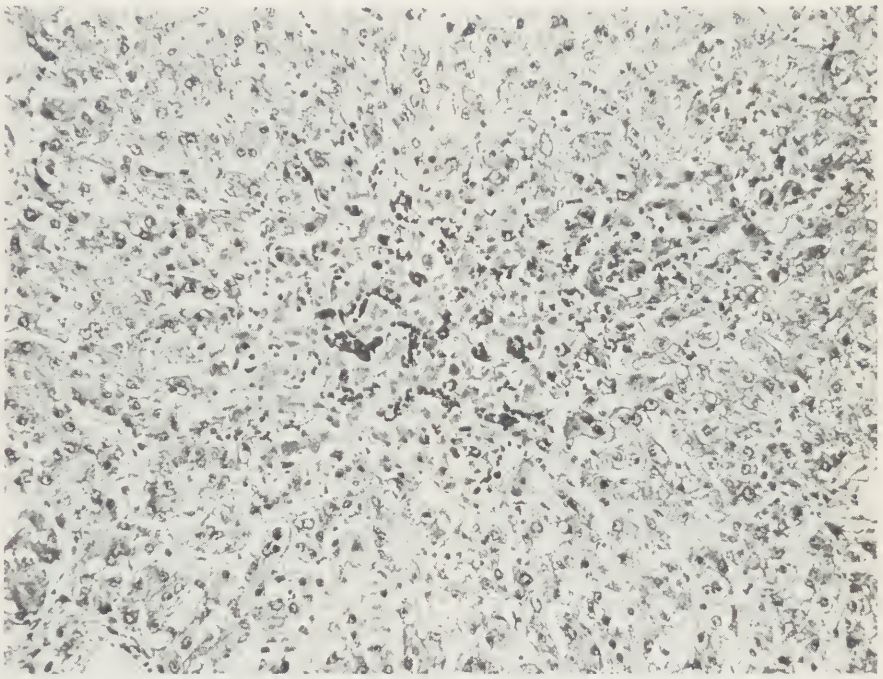


FIGURE 1: Extensive centrilobular hepatic necrosis with dilated sinusoids filled with erythrocytes (hematoxylin and eosin; x160).

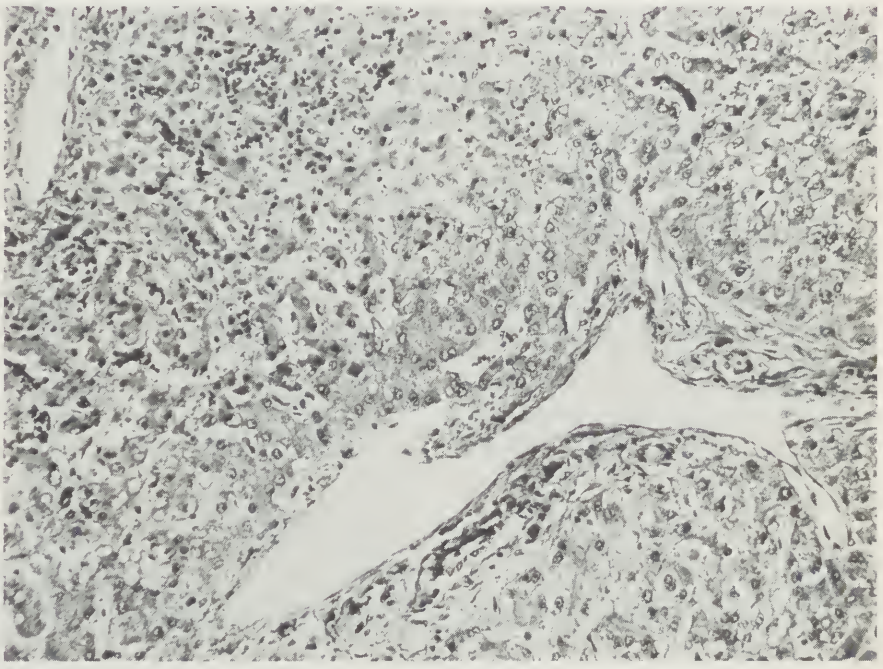


FIGURE 2: Extensive centrilobular necrosis with relative sparing in the periportal parenchyma (hematoxylin and eosin; x160).

management. Acetaminophen reaches peak plasma levels 30-60 minutes post-ingestion and only 25% is bound to plasma proteins. The majority (85-90%) is metabolized by glucuronide or sulfate conjugation. The remainder is metabolized via other pathways including the mixed function oxidase system.[1] Glutathione conjugation allows the oxidized metabolite(s) to be excreted in the urine as mercapturic acid. Sulfation and glucuronidation are saturable processes and the mixed function oxidase system is responsible for the additional degradation of acetaminophen required in an overdose. Once glutathione stores are depleted, the toxic metabolite(s) binds to macromolecules within hepatocytes leading to hepatocellular necrosis.

Much experimental data exist to confirm these concepts. Phenobarbital, a potent stimulator of the microsomal mixed function oxidase system, augments hepatic necrosis in mice. Conversely, several inhibitors of microsomal mixed function oxidase activity, e.g., piperonyl butoxide, cobaltous chloride, etc. have lessened acetaminophen-induced hepatic necrosis in mice.[1] Centrilobular hepatocytes have the greatest concentration of microsomal mixed function oxidase activity and centrilobular necrosis is a universal finding of acetaminophen toxicity in humans and laboratory animals.

Current therapy has been directed at augmenting glutathione stores, inhibiting microsomal enzyme activity and stimulating increased conjugation with sulfate or glucuronide. Exogenous glutathione is unable to penetrate the hepatocyte but intravenous cysteamine, a sulfhydryl compound acting as a surrogate glutathione, was found to prevent hepatotoxicity despite toxic acetaminophen levels. Flushing, anorexia, nausea, vomiting and reversible central nervous system toxicity accompanied cysteamine therapy which prompted a search for an alternative therapeutic agent.

Methionine, cysteine and propylthiouracil have been tried with moderate success. The most popular alternative is N-acetylcysteine which is effective in preventing massive hepatic necrosis orally or intravenously if given within 16-24 hours of toxic ingestion.[14,15] A loading dose of 140 mg/kg is given orally or by nasogastric tube to all patients with toxic acetaminophen levels followed by doses of 70 mg/kg every four hours for a total of 17 doses (72 hours). Plasma acetaminophen levels greater than 200 ug/ml four hours post-ingestion and greater than 50 ug/ml 12 hours post-ingestion are considered toxic.[16,17] Post-ingestion therapy is successful because 70% of the glutathione stores must be depleted before necrosis occurs.

Cimetidine is a potent inhibitor of cytochrome P_{450} oxidation and has been shown to be as effective as N-acetylcysteine in preventing hepatotoxicity in rats.[18] Cimetidine does not increase glutathione stores but presumably inhibits the formation of the toxic acetaminophen metabolite. Metyrapone, cobaltous chloride and piperonyl butoxide act similarly but are clinically impractical. Sodium sulfate promotes acetaminophen elimination by sulfation in mice.[19]

Acetaminophen toxicity in young children has been reported infrequently; our case is only the fourth fatality. The first two reports of acetaminophen toxicity in young children appeared in 1978.[5,20] Arena, *et al*[19] described a 3½-year-old girl who accidentally ingested 11.4 grams of acetaminophen. She had toxic acetaminophen blood levels at 24 and 48 hours post-ingestion (94 ug/ml, and 26 ug/ml respectively). The patient survived despite an AST of 20,376 IU/1 and ALT of 13,303 IU/1. Nogen and Bremner[5] reported a 3½-year-old who received 5.76 gm of acetaminophen over 36 hours. She had a serum acetaminophen level of 53 ug/ml 14 hours post-ingestion and a peak AST of 22,000 IU/1. This patient did not survive. Two additional fatalities have been reported, although many details regarding the ingestions are lacking.[6,16]

The variability of acetaminophen toxicity in childhood is emphasized by Peterson and Rumack.[3] Over 300 accidental ingestions in children less than 6 years of age were reported to the Rocky Mountain Poison Center between September 1974 and September 1979. Seventeen children had acetaminophen levels obtained and only five were in the toxic range. There was overlap in the amount of acetaminophen ingested by the toxic group (250-1530 mg/kg) and the nontoxic group (294-2571 mg/kg). The nontoxic group had marked emesis shortly after ingestion, which may have accounted for lower plasma acetaminophen levels. Meredith, *et al*[11] reported 86 children less than 4 years of age with nontoxic acetaminophen ingestion.

It is unclear as to the exact mechanism that prevents significant hepatotoxicity in many young children. The plasma half-life of acetaminophen is similar for neonates, children, adolescents and adults.[3] Neonates and children less than 9 years of age rely more heavily on sulfation than glucuronidation to metabolize acetaminophen.[4] Very little is known of the relationship between age and the mixed function oxidase system, which appears to be the crucial pathway in acetaminophen metabolism.

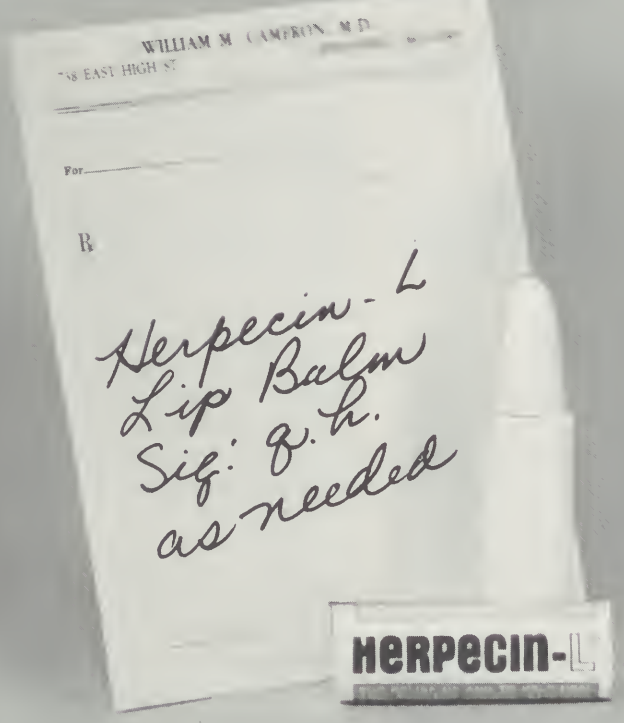
None of the four reported fatalities in children under 6 years of age was due to an obvious accidental ingestion and two cases were clearly iatrogenic. This is reminiscent of the recent experience with aspirin fatalities.[21] Half of 12 deaths in 1978 were in infants less than 1 year of age, and two-thirds of the patients died at home. This raises questions of iatrogenic overdose and forced ingestion, as well as delayed recognition and underutilization of poison control centers.

Several recent statements have warned against the use of aspirin in children with viral infections because of a possible association between salicylates and Reye syndrome.[7-9] Acetaminophen usage will undoubtedly increase as physicians and parents choose an alternate antipyretic. Education regarding proper dosing of acetaminophen is of critical importance. Pediatricians and family practitioners must be familiar with the diagnosis and management of acetaminophen overdose, especially since mortality is still preventable 16-24 hours post-ingestion.

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Liver Transplantation

A National Institutes of Health Consensus Report

SINCE PERFORMANCE of the first human orthotopic liver transplantation in 1963, over 540 such operations have been carried out in four medical centers in the United States and Western Europe. Additional liver transplantation procedures have been performed in other parts of the world, and more recently in several other American medical centers. Although extremely demanding and expensive, the operation has been shown to be technically feasible, and interpretable results have been reported from all four primary transplant centers. These clearly demonstrate that liver transplantation offers an alternative therapeutic approach which may prolong life in some patients suffering from severe liver disease that has progressed beyond the reach of currently available treatment and consequently carries a predictably poor prognosis. However, substantial questions remain regarding selection of patients who may benefit from liver transplantation; the stage of their liver disease at which transplanation should be performed; survival and clinical condition of patients beyond the initial year after transplantation; and overall long-range benefits and risks of transplantation in the management of specific liver diseases.

In order to resolve some of these questions, the National Institutes of Health on June 20-23, 1983, convened a Consensus Development Conference on Liver Transplantation. After 2 days of expert presentation of the available data, a Consensus Panel consisting of hepatologists, surgeons, internists, pediatricians, immunologists, biostatisticians, ethicists, and public representatives considered the offered evidence to arrive at answers to the following key questions:

1. Are there groups of patients for whom transplantation of the liver should be considered appropriate therapy?
2. What is the outcome (current survival rates, complications) in different groups?
3. In a potential candidate for transplantation, what are the principles guiding selection of the appropriate time for surgery?
4. What are the skills, resources, and institutional support needed for liver transplantation?
5. What are the directions for future research?

1. Are there groups of patients for whom transplantation of the liver should be considered appropriate therapy?

Liver transplantation is a promising alternative to current therapy in the management of the late phase of several forms of serious liver disease. Candidates include children and adults suffering from irreversible liver injury who have exhausted alternative medical and surgical treatments and are approaching the terminal phase of their illness. In many forms of liver disease the precise indications and timing of liver transplantation remain uncertain or controversial.

Prolongation of life of good quality for patients who would otherwise have died has been reported in the following conditions:

- *Extrahepatic biliary atresia* is the most common cause of bile duct obstruction in the young infant. Patients who fail to respond to hepatoportoenterostomy (Kasai procedure) often benefit from liver transplantation. Recent data suggest that as many as two-thirds of these patients survive for 1 year or more after transplantation.
- *Chronic active hepatitis* is caused by viral infections or drug reactions, but many cases remain unexplained. Some patients with progressive liver failure are candidates for transplantation. Currently, exceptions seem to include drug-induced chronic active hepatitis, which usually responds to removal of the chemical agent, and hepatitis B-induced disease in which viremia persists. In the latter instance, rapid reappearance of infection with progressive liver failure has been reported following transplantation.
- *Primary biliary cirrhosis is* a slowly progressive cholestatic liver disease. Results of transplantation appear favorable for patients with end-stage liver injury. The procedure may improve the quality of life.
- *Inborn errors of metabolism* may cause end-stage liver damage or irreversible extrahepatic complications. Transplantation may be appropriate for such patients.
- *Hepatic vein thrombosis* (Budd-Chiari syndrome) often results in progressive liver failure, ascites, and death. Patients who have not responded to anticoagulation or appropriate surgery for portal decompression may be candidates for transplantation.
- *Sclerosing cholangitis*, a chronic non-suppurative inflammatory process of the bile ducts, may cause liver failure. Less favorable results following transplantation in this group may be due to prior multiple surgical procedures, a diseased extrahepatic bile duct, the presence of biliary infection, or other factors.
- *Primary hepatic malignancy* confin-

ed to the liver but not amenable to resection may be an indication for transplantation. Results to date indicate a strong likelihood of recurrence of the malignancy. Nonetheless, the procedure may achieve significant palliation.

- *Alcohol-related liver cirrhosis and alcoholic hepatitis* are the most common forms of fatal liver disease in America. Patients who are judged likely to abstain from alcohol and who have established clinical indicators of fatal outcome may be candidates for transplantation. Only a small proportion of alcoholic patients with liver disease would be expected to meet these rigorous criteria.

Although *fulminant hepatic failure* with massive hepatocellular necrosis induced by hepatitis viruses, hepatotoxins, or certain drugs may warrant liver transplantation, rapid progression of the disease and multi-organ system failure frequently preclude this option.

2. What is the outcome (current survival rates, complications) in different groups?

The survival and complication rates of patients who have undergone liver transplantation are the major criteria for judging efficacy. Data are available from four locations (Pittsburgh; Cambridge, England; Hanover, Germany; and Groningen, The Netherlands). The interpretation of the existing data on survival is extremely difficult because no control data are given for comparison, surgical techniques and drug therapies varied over time, and patient selection criteria and management differed across centers.

While sufficient data for thorough assessment of liver transplantation are not available to date, today certain trends appear to emerge:

- Patients currently being accepted for transplantation have a high probability of imminent death and a low quality of life in the absence of transplantation.
- Patients undergoing transplantation have an operative mortality (within 1 month) of 20 to 40 percent.
- One-year survival among transplant recipients since 1980 is favorable when compared with their expected course in the absence of transplantation.
- Since 1980, 1-year survival appears improved over the earlier transplant experience.
- Individual patients have survived for many years with good quality of life after transplantation.
- Data are insufficient to evaluate survival rates beyond 1 year following transplantation with current technologies.
- Short-term quality of life is probably enhanced in many transplant survivors. We lack systematically gathered information on quality of life among long-term survivors.

Severe non-lethal complications of transplantation frequently occur and must be taken into account in judging efficacy of this procedure. Massive hemorrhage is the most serious intraoperative and early postoperative problem. Other postoperative complications include renal dysfunction, rejection, biliary tract complications, graft vascular obstruction, and infection. With accumulating expertise in medical and surgical management and with new developments in technology (e.g., intraoperative veno-venous bypass and cyclosporine), these complications can be expected to diminish.

3. In a potential candidate for transplantation, what are the principles guiding selection of the appropriate time for surgery?

Selecting an appropriate stage for a given illness for liver transplantation is a complex issue: transplantation just prior to death may significantly diminish the life-saving potential of the procedure since hepatic decompensation in its latest stages poses a formidable surgical risk. Transplantation early in the course of hepatic decompensation may deprive a patient of an additional period of useful life.

An ideally timed liver transplantation procedure would be in a late enough phase of disease to offer the patient all opportunity for spontaneous stabilization or recovery, but in an early enough phase to give the surgical procedure a fair chance of success. For most patients, these phases are difficult to define prospectively.

While no single best time for surgery can be specified, transplantation should be reserved for patients in any of the following phases of disease:

- When death is imminent.
- When irreversible damage to the central nervous system is inevitable.
- When quality of life has deteriorated to unacceptable levels.

The exact choice of the time for liver transplantation in an individual requires the judgment of a qualified medical team and a well-informed patient. The following are offered as guidelines for individual liver diseases.

- *Extrahepatic Biliary Atresia.* Biliary enteric anastomosis (hepatoportoenterostomy of Kasai) performed in the first 2 months of life provides significant improvement for at least 5 years in one-third of the patients, although cirrhosis and disappearance of the intrahepatic bile ducts occur with increasing age. While success of this procedure cannot be predicted for the individual patient, it should be used as initial therapy for extrahepatic biliary atresia. In the absence of severe hepatic decompensation in these children, liver transplantation should be delayed as long as possible to permit the child to achieve maximum growth. In children with successful hepatoportoenterostomy, liver transplantation should be deferred until progressive cholestasis, hepatocellular decompensation, or severe portal hypertension supervene. Multiple attempts at hepatoportoenterostomy or surgical porto-systemic shunting render eventual transplant surgery technically more difficult and operationally more dangerous and therefore should be avoided in favor of liver transplantation.
- *Chronic Active Hepatitis.* The potential for spontaneous remission and the complex course of chronic active hepatitis make valid predictions of the subsequent course difficult except in the latest stages of the disease. Using strict criteria, patients can be identified who have almost no chance of survival beyond 6 months. Such patients may be suitable

candidates for transplantation.

● *Primary Biliary Cirrhosis.* The indolent course of primary biliary cirrhosis and the potential for spontaneous improvement even in patients with advanced disease make transplantation potentially suitable only in the final stages of liver failure or when the quality of life has deteriorated to an unacceptable level.

● *Alpha-1-Antitrypsin Deficiency.* Of the some 20 phenotypes in this genetic disorder, only Pi ZZ is associated with significant hepatic disease in children. Of infants with this phenotype, neonatal cholestasis occurs in 5.5 percent. Jaundice usually is transient, clearing before 6 months of age although biochemical evidence of activity may persist. Liver transplantation is indicated in children with Pi ZZ phenotype only when cirrhosis has developed and when evidence of hepatic failure is present.

Adults with alpha-1-antitrypsin deficiency may have liver disease associated with phenotype Pi ZZ, MZ, or SZ. If hepatic failure occurs, liver transplantation may be indicated.

● *Wilson's Disease.* Patients with Wilson's disease usually are responsive to chelation therapy with penicillamine. However, some patients present with fulminant hepatic failure and/or progressive disease unresponsive to adequate chelation therapy. Liver transplantation may be indicated in these instances.

● *Crigler-Najjar Syndrome.* Of the two types of this genetic disorder associated with severe unconjugated hyperbilirubinemia, patients with Type I invariably develop bilirubin encephalopathy usually before 15 months of age. Because of the inevitability of central nervous system damage and the limitations of phototherapy, liver transplantation is indicated in such patients at an early age.

● *Miscellaneous Metabolic Diseases.* A number of rare genetic diseases may involve the liver and cause cirrhosis and eventual hepatic failure.

Patients with tyrosinemia, Byler's disease, Wolman's disease, and glycogen storage diseases Types O and IV may be candidates for hepatic transplantation.

Liver transplantation may also be indicated for patients with certain genetic diseases associated with severe neurological complications, such as hereditary deficiency of urea cycle enzymes and disorders of lactate/pyruvate or amino acid metabolism.

● *Hepatic Vein Thrombosis.* The course of hepatic vein thrombosis is variable, and therefore transplantation should be reserved for patients with severe hepatic decompensation. The possibility of later transplant surgery should not discourage the use of portal venous decompression when otherwise indicated.

● *Primary Sclerosing Cholangitis.* No clinical, biochemical, serologic, or histologic factors have proved to be of value in predicting outcome. When appropriate attempts at biliary tract diversion and dilatation have failed, and death from liver failure is imminent, liver transplantation should be considered.

● *Alcoholic Liver Disease.* At least 50 percent of the cases of cirrhosis in the United States are attributable to the abuse of alcohol, and alcohol abuse is the leading cause of hepatic morbidity and mortality.

Alcoholic liver disease is most favorably affected by abstinence. The natural history of untreated alcoholic hepatitis and/or cirrhosis is extremely variable, and there are few precise prognostic indicators in any but the terminal phase of the disease. Liver transplantation may be considered for the patients who develop evidence of progressive liver failure despite medical treatment and abstinence from alcohol.

4. What are the skills, resources, and institutional support needed for liver transplantation?

The requirements for conducting a liver transplantation program by a sponsoring institution are formidable. Accordingly, any institution embarking on this program must make a major commitment to its support. In addition to the full array of services required of a tertiary care facility and a program in graduate medical education, an active organ transplantation program should exist. Few hospitals are likely to meet these prerequisites.

Liver transplant recipients are seriously ill before surgery. The transplant effort is prodigious, and the postoperative intensive care interval, averaging 2 weeks, is punctuated by complications and frequent need for reoperation.

In this context, experts in hepatology, pediatrics, infectious disease, nephrology with dialysis capability, pulmonary medicine with respiratory therapy support, pathology, immunology, and anesthesiology are needed to complement a qualified transplantation team. Extensive blood bank support to provide the needed copious quantities of blood components is mandatory. Similarly, sophisticated microbiology, clinical chemistry, and radiology assistance are required. Emotional support for patient and family warrants psychiatric participation. Availability of effective social services to assist patients and families is indispensable.

The transplantation surgeon must be trained specifically for liver grafting and must assemble and train a team to function whenever a donor organ is available. Institutional commitment to the program mandates that operating room, recovery room, laboratory, and blood bank support exist at all times. Allocation of intensive care and general surgical beds is important. Recruitment of a cohort of specialized nurses and technicians to staff these areas is necessary. Access to tissue typing capability; ongoing research programs in liver disease, organ preservation, and transplantation immunology; and available hemoperfusion and microsurgical techniques are desirable attributes of a transplantation effort.

Participation in a donor procurement program and network is essential, and an interdisciplinary deliberative body should exist to determine on an equitable basis the suitability of candidates for transplantation.

Institutions conducting liver transplantation are obligated to prospectively collect and share data in a coordinated, systematic, and comprehensive manner in all patients selected as transplantation

candidates, so that the role of liver transplantation in the management of patients with liver disease can be assessed properly. Additional information permitting cost-benefit analysis should be secured.

Finally, the panel feels that adherence to these guidelines detailing the essentials to conduct a transplantation program offers the best assurance of high quality in performing this very difficult operation.

5. What are the directions for future research?

The Consensus Panel identified several broad areas related to liver transplantation in which critically important information is either unavailable or so incomplete as to defy meaningful interpretation. It is recommended that a registry or clearinghouse be established for collection and evaluation of all available data on liver transplantation. Such a center would develop unified criteria for selection of patients for transplantation and for reporting and evaluating all data related to the outcome of the operation and the patients' postoperative and long-term condition. As methods of immunosuppression improve and the logistic obstacles are resolved, the feasibility and desirability of randomized clinical trials of liver transplantation should be explored for suitable subgroups of patients with specific liver diseases.

High priority also should be given to research projects related to several aspects of the transplant procedure itself. Means should be developed to improve preservation of human liver *ex vivo* and criteria should be established to evaluate its viability. Improved control of organ rejection requires urgent attention; this includes thorough evaluation of the benefits and risks of cyclosporine as an immunosuppressive agent in liver transplantation. The design of the hemodynamic support system during transplantation needs evaluation and potential improvement. Research should be encouraged for developing better supportive measures for patients in liver failure, including maintenance of proper renal and cerebral function.

In the broad areas of the cause, pathogenesis, and natural course of chronic liver disease, present knowledge is fragmentary and incomplete, and research in these areas should be fostered and supported by all available means. Particular attempts should be made to determine the possible role of liver transplantation in the management of hepatocellular carcinoma at a stage when metastatic spread appears remote. Similarly, approaches should be sought to limit infection of the transplanted liver by hepatotropic viruses. Finally, liver transplantation should be explored as a modality of replacement therapy in genetically determined multiorgan enzyme deficiencies.

Conclusion

After extensive review and consideration of all available data, this panel concludes that liver transplantation is a therapeutic modality for endstage liver disease that deserves broader application. However, in order for liver transplantation to gain its full therapeutic potential, the indications for and results of the procedure must be the object of comprehensive, coordinated, and ongoing evaluation in the years ahead. This can best be achieved by expansion of this technology to a limited number of centers where performance of liver transplantation can be carried out under optimal conditions.

Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	LEVOTHYROXINE	**LIOTHYRONINE**
Category:	Thyroid hormone	Thyroid hormone
Brand Name:	Synthroid, Flint Levothyroid, Armour	Cytomel, SKF
Generic Name:	Levothyroxine sodium	Liothyronine sodium
Dosage Forms:	Tablets, Injection	Tablets
	VELOSEF	**VASOSULF**
Category:	Antibiotic (cephalosporin)	Ophthalmic
Brand Name:	Velosef, Squibb	Vasosulf, SMP
Generic Name:	Cephradine	Sulfonamide decongestant combination
Dosage Forms:	Capsules, Tablets, Oral Suspension, Powder for Injection	Ophthalmic solution

EDITORIALS

Bendectin: Another Victim of Litigation?

Guest Editorial

A recent decision by the Merrell Dow Pharmaceutical Company to remove Bendectin from the market has far-reaching implications for medicine and society. Bendectin was a widely used, extensively studied antiemetic drug for usage in the relief of nausea and vomiting of pregnancy. It has been available for over 27 years and has been reported to have been used by more than 33 million women during pregnancy. The withdrawal of this product from the market not only leaves a deep void in our therapeutic armamentarium but also represents a potentially devastating precedent for the future.

Congenital birth defects occur in 3% to 5% of all births. The etilogy of these defects is unknown in the majority of cases; both genetics and environment may contribute. Physicians and their pregnant patients have been made painfully aware by experience with drugs like thalidomide, chloramphenicol, and diethylstilbestrol that medications may be teratogens; therefore, most physicians have become therapeutic nihilists during pregnancy. Specific medical conditions can and are however, safely treated during pregnancy, such as urinary tract infections with antibiotics.

Nausea and vomiting of pregnancy can be a modest annoyance handled by diet modification, or a severe problem with weight loss, ketosis, and dehydration. Bendectin has been used as a safe and effective treatment when simple dietary measures have failed. Exhaustive studies, both case-controlled and cohort, have supported the safety of this product.

Litigation involving Bendectin has brought adverse publicity to the drug. Although the Merrell Dow Pharmaceutical Company was successful in defending an initial suit, a jury found in favor of the plaintiff in a recent action. It is clear from the data available that the verdict reached was not supported by the available scientific information. The decision is being reviewed, but the Merrell Dow Pharmaceutical Company felt forced to remove the medication from the market.

This scenario is tantamount to the physician who has a frivolous lawsuit brought against him and loses the case. The physician's reputation and career may be ruined by a clever attorney playing on the emotions of a well-meaning jury that does not or cannot understand the facts that were presented.

What if the same fate befalls other medications commonly used, such as digitalis or insulin? The implications of this decision are that we are left without an effective and safe antiemetic and that mild hyperemesis gravidarum may progress to a more severe condition in the absence of a medication such as Bendectin to control the problem. This will lead to more frequent hospitalizations, which in turn will lead to more human suffering and an increase in the cost of medical care. It is clear that other medications that can and have been used safely and effectively may be spuriously implicated in birth defects during pregnancy. This same fate may befall drugs given to nonpregnant patients and potentially affect every area of medicine.

Resolution of this problem seems arduous and improbable. The appeal process, even if successful, would leave Bendectin forever tainted. Potentially, any unfortunate couple who gives birth to a child with a congenital defect after the mother took Bendectin may, again in anger and devastation, institute a suit against their physician and/or the Merrell Dow Pharmaceutical Company. David B. Sharrock, president of Merrell Dow Pharmaceuticals, U.S.A., suggested in a recent letter to the medical community, "It may be that our action will highlight once again the need for our society to reflect upon the effect our nation's current attitude toward litigation is having upon the health care community."

Unfortunately, there are no simple answers. Society does not appear prepared nor favorably disposed to rethink its approach toward litigation. Legislation does not appear to be forthcoming to alleviate the litigious climate that exists in medicine or our society as a whole. This tragedy represents a landmark event in medical practice. Local and national medical groups, whatever their specialty, should pay heed to these proceedings and address this issue in an organized and aggressive fashion. I am not optimistic that a satisfactory approach to the problem is feasible in the near future.—**Jeffry I. Komins, M.D.**

Reprinted with permission from the *Delaware Medical Journal*, September 1983.

Schools and Education

Guest Editorial

Our public school system has come in for a great deal of criticism lately. Note that I called it a public school system, and not an educational system. I do not believe that it was always a school system; I believe that at one time there was some education somewhere in the schools. I suspect that education got lost when the system became a system.

I remember the schools when I was an "inmate." In my community, there were public schools, parochial schools, and country schools. The country schools were small, frequently one room, and had shortened terms to provide needed child power on the farms. The parochial schools were ruled by no-nonsense nuns-and ruled with an iron hand. The city public schools tended to have eight rooms and were more luxurious than the other schools. They were also no-nonsense institutions. The schools had no food services; children walked home for lunch or "brown-bagged" it; only the largest city schools had gymnasia.

Perhaps the greatest difference in the schools of then and now is the concept of who had any rights. The pupils were always wrong and the teachers were always right. If a pupil had trouble with a teacher, he needed to keep the incident secret from home, or he had equal trouble with parents. The teachers granted the right to the students to secure instruction with minimal disturbance from the pupil trouble makers. Chronic and severe disruptive behavior was not tolerated; the perpetrators were kicked out of school. The pupils may have been afraid of teachers, but the teachers did not live in fear of the students. School was a place to learn; it was not a place to be fed, coddled, integrated, or baby-sat. Vandalism was limited to carving initials into desks.

Then professional educators assumed dominance, and this non-system of education was transformed. Schools were

too small, so small ones were consolidated into larger palaces. Larger schools needed more administrators and higher-paid administrators. Faculty had to be enlarged and departmentalized. Food services, gymnasia, and other expensive services including lots of counselors, nurses, and first-aid rooms added to the size and complexity of the school. Each department needed high-paid administrators and personnel. The teachers and other school people organized their unions, and soon the Ultimate in Bureaucratization arrived: The system began to exist for the benefit of the hierarchy and bureaucracy instead of for the benefit of the children.

As the layers of bureaucracy multiplied, and as more services and administrative functions were added, the education of children became lost in the confusion.

The diminution of the amount of education in the system, and the mediocrity of that which is offered, has perhaps led to the rejection of that bit of education that is offered. The boredom of the pupil has perhaps contributed to the rebellion, rejection, vandalism, and lawlessness of many of those "sentenced" to the system. The claim of pupil rights voiced by many parents and propounded by the legal system has contributed to the nearly complete breakdown of the school system as an educational vehicle. The teachers are afraid of the pupils as well as the system. The genuine students of the system are deprived of their rights to an environment conducive to learning.

Somewhere in the consolidation and reorganization of the system, the education of children got lost. The schools became primarily a baby-sitting service dedicated to feeding the children and, with the help of school buses, racially integrating them.

Now, do I have hopes or suggestions for improvement? I have a few. The school bureaucracy is entrenched and in control. Its lobbying power, both in the state and national legislatures, is awesome. Any criticism of the System is treated as an attack on our children and on our judicial system. I am reminded of our USA presidents who were elected to office on a promise of taming the Federal Bureaucracy. They found that an entrenched Bureaucracy is politically impregnable. Until we elect legislatures that will dare to cut the siphons moving taxpayers money to the Bureaucracy, we have no hope. If the money flow is cut, the Bureaucracy will follow the route of the Indiana 1983 corn crop, withering and dying for lack of money as the corn crop has withered and died for lack of rain. Will such happen? I doubt it for the reason of the existence of the pseudo-education lobby.

My advice to those who have children, our most valuable national asset, is to recognize that the System is not an education system; to keep the children we love out of the System; and to find private schools that offer education instead of babysitting. In addition, take all batteries out of handheld calculators, pull the plug on the TV, and teach reading to your own children. If they learn to read, and if we encourage their inquisitive little minds to search for knowledge, they will get education to their own limits. One other little trick to help them learn numbers is to teach them to shoot craps as toddlers, and to teach them Black Jack as preschoolers. They will learn numbers well enough to conduct junior high school math classes before they finish kindergarten.—**L. A. Arata, M.D., Shelbyville, Ind.**

Self Examination

Guest Editorial

If you get out of bed each morning looking forward to seeing your patients

If your patients ask you how *you* feel and inquire about your family

If you have made real friends of all your patients

If you feel flattered each time a new patient consults you

If you can imagine yourself in your patient's place and would willingly submit to and pay for all the tests and treatments you recommend

If you can say "I don't know" without a sense of shame

If you can welcome a request for another opinion

If you are proud of the clinical records you keep

If you can discuss and explain your fees without hesitation or hostility

If those who know you best become your patients

If you feel tears in your eyes when a patient dies but not guilt when you announce the death to the family

If those who help you care for your patients decline offers for more lucrative positions in order to continue caring for your patients

If you feel wealthy irrespective of the net worth shown on your financial statement

If the members of your family do not resent or sacrifice the time you spend with your patients

If your children visit with you during breakfast and dinner

If your family is bound in mutual respect, affection, and pleasure

If you are awed by the marvelous magic of the human body

If you are humbled by the majesty of the human mind

If your soul is nurtured by feeling needed

If your self esteem derives from serving others

If you lie down at night filled with gratitude for the bounty of your life

Then you will know that you practice medicine not for a living but as a way of life. You will know that you *are* a physician.

Unfortunately you will also know that you are part of an endangered species.—

Mark R. Johnson, M.D. Reprinted with permission from the *Journal of the Oklahoma State Medical Association*, September 1983.

Padua, Italy: The Renaissance of Medicine

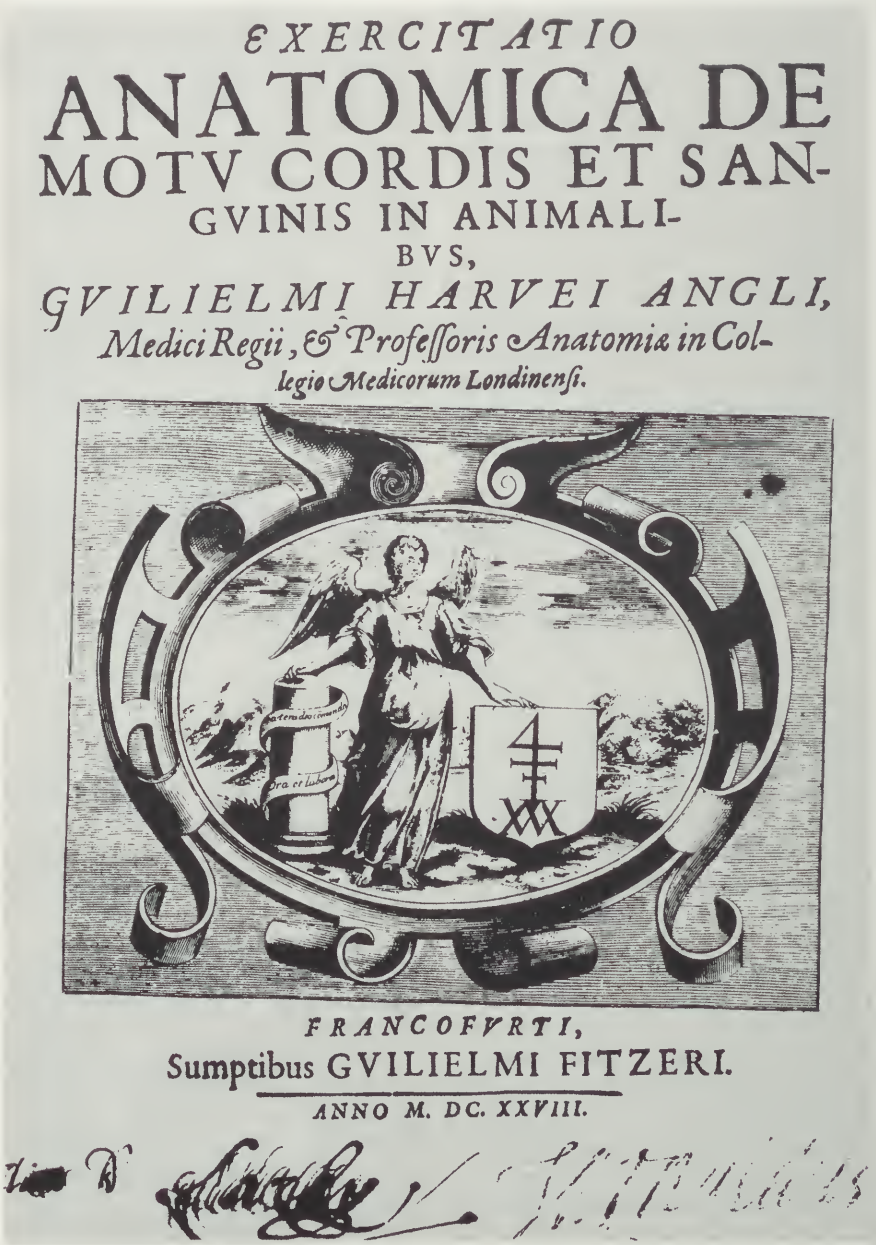
AUSTIN L. GARDNER, M.D.
Indianapolis

De Motu Cordis, by William Harvey, was published in 1628 and has been considered the most important medical book ever written. Circulation was described. Sir William Osler, on the occasion of the 1906 Harveian oration stated, "It marks the break of the modern spirit from the old tradition." No longer were men to be content with finely spun theories and dreams; but here for the first time a great physiological problem was approached from the experimental side—a modest little monograph of 72 pages from which we may date the beginning of experimental medicine.

The dogma of Galen was thus challenged, and the renaissance of science that had been initiated by Copernicus was continued.

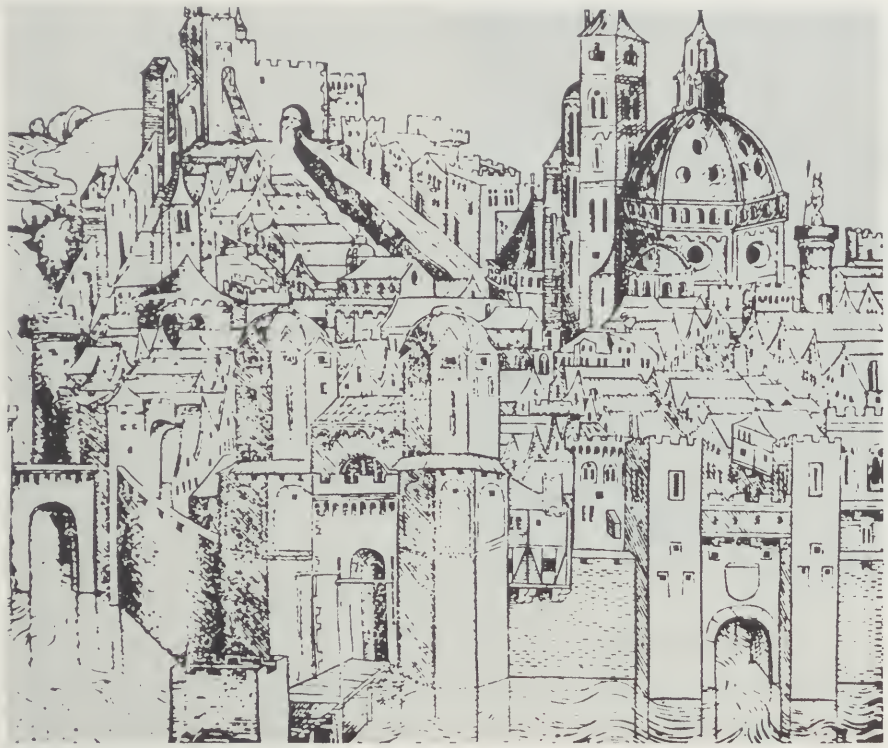
Padua was the outstanding European university in 1500 when Nicolaus Copernicus came from Poland to study Law and Medicine. He received his degree in Canon Law in Ferrara in 1503 but returned to Padua to receive his medical degree before returning to Poland. In Poland he served primarily as a priest but also as a physician to the clergy. He held political office, painted, wrote poetry and observed the stars. From his observations he came to doubt the Ptolemaic Theory of the earth-centered universe. He read that Greek philosophers had suggested a sun-centered universe, and his observations supported, and to his mind, proved this theory. He published *De Revolutionibus Orbium Coelestium* in 1543.

When Einstein proposed the theory of relativity 360 years later, he was hailed


EXERCITATIO
ANATOMICA DE
MOTV CORDIS ET SAN-
GVINIS IN ANIMALI-
BVS,
GVILIELMI HARVEI ANGLI,
Medici Regii, & Professoris Anatomiæ in Col-
legio Medicorum Londinensi.
FRANCOFVRTI,
Sumptibus GVILIELMI FITZERI.
ANNO M. DC. XXVIII.

LILLY LIBRARY PHOTO of the first edition of *De Motu Cordis*. The Lilly Library at Indiana University in Bloomington contains many of the first editions of the great books of medicine. The books were collected by J. K. Lilly, Jr. Many have a Paduan connection.

Presented at a meeting of the Indiana Chapter, American College of Surgeons, Hilton Head, S.C., June 1983.



PADUA in the 16th century.

as a new Copernicus. The year of 1543 was also the year of publication of *De Humani Corporis Fabrica* by Andreas Vesalius (on the fabric of the human body). Vesalius had studied medicine in Paris under Sylvius and was an accomplished anatomist when he arrived in Padua in 1537. He was awarded his degree of Doctor of Medicine at the age of 24, and the next day was appointed Professor of Surgery, which included the responsibility of teaching anatomy. To teach effectively, he presented anatomic diagrams, first of the venous system and then of the skeletal and nervous systems.

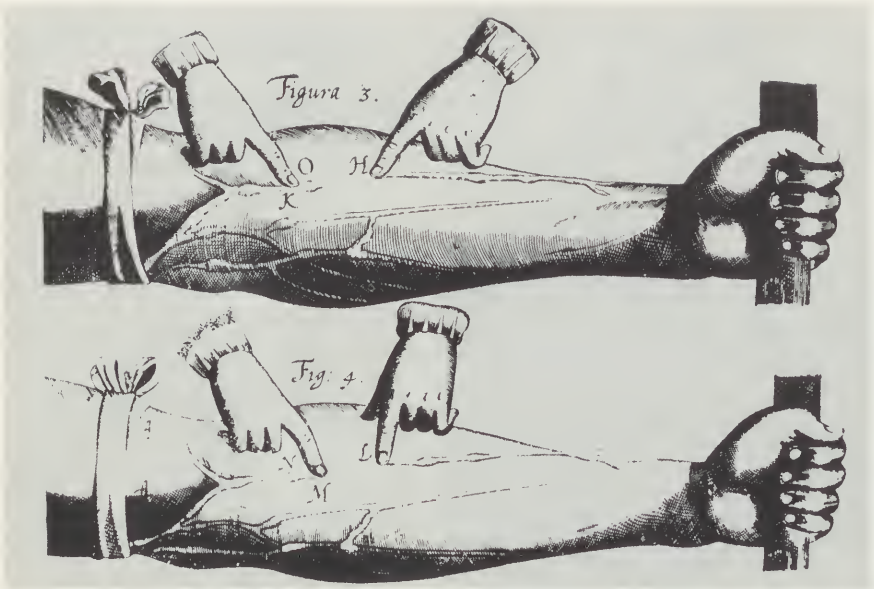
Vesalius became aware of differences in his observations from the writings of Galen and stated the differences boldly. One of the best examples was the diagram of the portal system revealing a five-lobed liver (a throw-back to the animal dissections of Galen). The inset of the male organs of generation indicates a human dissection. The location of the tubes and round ligament was clarified later in the century by the Professor of Anatomy who followed Vesalius at Padua-Fallopius.

The 16th century concept of the movement of the blood was as follows: The portal vein transported products of digestion to the liver, a portion of which was converted into blood (the first of the four humors) and transported to the spleen by the portal vein. The spleen extracted the succus melancholicus (black bile), which was discharged into the stomach to whet the appetite. The second humor (choler) passed to the gallbladder and was discharged to aid digestion. A portion of the venous blood was transported to the right ventricle, sweated through the septum to the left ventricle. The natural spirit was refined by Pneuma to become vital spirit and was distributed to all parts of the body by arteries to provide heat in a to and fro fashion. The fourth humor or phlegm or pituita was carried to the brain by the soporales or carotids. The humor dripped down through the pituitary and was evacuated via the nasal cavities.

The controversy regarding venasection in the treatment of disease resulted in



VESALIUS' DIAGRAM of the portal system reveals a five-lobed liver from animal dissection (left) and male reproductive organs, indicating a human dissection.



DEMONSTRATION of direction of venous flow by Harvey in *De Motu Cordis.*

Vesalius writing *The Venasection Letter* in 1539. This letter supported the Hippocratic-Galenic Theory of bleeding near the source of the disease. The effect of the letter was to direct attention to the venous anatomy and led to the observation of the valves later in the century in Padua by Fabricius of Aquapendente.

After the publication of his masterpiece, the Fabrica, Vesalius entered the medical service of the emperor and had many exciting medical experiences throughout Europe. He consulted with Ambroise Pare, across enemy lines in the care of the King of France, injured in a jousting exercise. The King died of contra-coup injury of the brain.

He discussed the presence of venous valves with Canona of Ferrara who made a diagram of the valves.

The credit for the observation of the venous valves was given to Fabricius, the great Paduan anatomist, who in 1603 published the *De Venarum Ostiolis*. His amphitheater, built in the 1590s, accommodated 300. Fabricius thought that the valve function was to slow the movement of the blood. He also made remarkable observations in comparative anatomy and in embryology.

William Harvey attended Caius College at Cambridge. Harvey went to Padua in 1598 and studied medicine directly under Fabricius before returning to St. Bartholomew Hospital in London in 1602. Over the next two decades he developed the theory that brought medicine out of the Middle Ages. He stated that "in attempting to discover the motion and uses of the heart, I found the task so arduous that I was tempted to think that the motion of the heart could only be comprehended by God—the rapidity of the movement, dilation and contraction, was in the twinkling of an eye." He studied cold-blooded animals—serpents, frogs and shellfish. He noted that the heart contraction forced the blood out. He demonstrated the direction of the flow of the blood by tying ligatures on arteries and veins at various points, and he measured the volume of cardiac output in animals. He compared a heartbeat to the mechanism of a firearm with flint and spark, and he again stated that it was in the twinkling of an eye. He demonstrated the direction of the venous flow by means of pressure on veins, emptying them and then releasing the pressure.

Robert Boyle, near the end of Harvey's life, asked what the moment of enlightenment might have been, and Harvey replied that the realization came to him in Padua when he observed the venous valves with Fabricius.

Some understanding of why these events could take place in this small town might be gained by considering the origin of the University. In 1222 the *Studium of Bologna* was transferred to Padua. This resulted from an argument that the students had with the citizens of Bologna. In 1405 the University passed under the rule of Venice, and the students were divided into various nations, and Schools of Law, Arts and Medicine were established. The students elected their professors. The University was outside papal dominions. Under the protection of Venice, free from ecclesiastical restrictions, Padua rapidly became the outstanding University in Italy. An example of religious freedom was the statement in the diploma of William Harvey, who was a Protestant, "In Christ's name, Amen." The diploma of a Jew named Pictor began "In the name of the eternal God."

The 16th century in Padua began with Copernicus and ended with Harvey, and the seriousness of the challenge to the accepted thought of the day was exemplified by the fact that Bruno was burned at the stake for not renouncing the ideas of Copernicus.

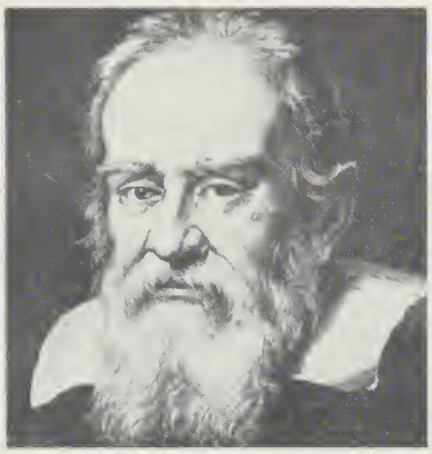
Galileo came to Padua in 1592 as professor of mathematics and made observations on falling bodies that disproved Aristotle's contention that bodies of different weight fell at different speeds. He learned of the invention of the telescope and built an instrument with the magnifying power of 32, enabling him to study the stars. He came to believe in the theory of Copernicus and was tried by an inquisition court for his teaching, avoiding the sentence of heresy by renouncing some of his proofs based on the study of the tides. The Pope, in May 1983, stated that Galileo was correct.

There were many other events of note in 16th century Padua. Ascelli, who rediscovered the lymphatics, attended medical school there as did Fracastorius who wrote the mock-heroic poem,

Syphilis, describing the clinical course of the disease, newly introduced in the eastern hemisphere in the Columbian exchange. Sanctorius, Malpighi, Valsalva, Morgagni and Scarpa followed.

The little town of Padua, 27 miles from Venice, that had been founded by one of the Trojan heroes in the 11th century, B.C., and had been a base of communication for Caesar as he paused in Ravenna before crossing the Rubicon, and was the burial place of St. Anthony of Padua, the Patron Saint of the Poor, and with a rich heritage in art, music, literature and architecture, has known its place in history.

One final note: It is interesting that Galileo and Harvey, who were contemporaries in Padua, working on completely different problems, were frustrated by their inability to observe accurately, because of the speed of what they were studying, the falling body by Galileo, the beating heart by Harvey. Galileo solved his problem by studying balls rolling down an inclined plane, and Harvey observed the slower beating cold-blooded animals' hearts.



GALILEO, professor of mathematics in Padua.

As the electron microscope probes the changes in the nucleus of the cell and the subatomic particles called quarks are evaluated, one cannot help but wonder what someone at Hilton Head in 2383 will present to the Indiana Chapter of the American College of Surgeons.

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Physician Advertising Policy

THE INDIANA STATE Medical Association has adopted, as its policy in regard to physician advertising, the AMA Judicial Council opinion on this subject. The following is the Judicial Council opinion in its entirety:

This statement reaffirms the long-standing policy of the Judicial Council on advertising and solicitation by physicians. The Principles of Medical Ethics are intended to discourage abusive practices that exploit patients and the public and interfere with freedom in making an informed choice of physicians and free competition among physicians.

Advertising—The Principles do not proscribe advertising; they proscribe the solicitation of patients. Advertising means the action of making information or intention known to the public. The public is entitled to know the names of physicians, the type of their practices, the location of their offices, their office hours, and other useful information that will enable people to make a more informed choice of physician.

The physician may furnish this information through the accepted local media for advertising or communication, which are open to all physicians on like conditions. Office signs, professional cards, dignified announcements, telephone directory listings, and reputable directories are examples of acceptable media for making information available to the public.

A physician may give biographical and other relevant data for listing in a reputable directory. A directory is not reputable if its contents are false, misleading, or deceptive or if it is promoted through fraud or misrepresentation. If the physician, at his option, chooses to supply fee information, the published data may include his charge for a standard office visit or his fee or range of fees for specific types of services, provided disclosure is made of the variable and the other pertinent factors affecting the amount of the fee specified. The published data may include other relevant facts about the physician, but false, misleading, or deceptive statements or claims should be avoided.

The public has a right to know the names of physicians, the type of their practice, their location, office hours, and other useful information . . .

Solicitation—The term "solicitation" in the Principles means the attempt to obtain patients by persuasion or influence, using statements or claims that (1) contain testimonials, (2) are intended or likely to create inflated or unjustified expectations of favorable results, (3) are self-laudatory and imply that the physician has skills superior to other physicians engaged in his field or specialty of practice, or (4) contain incorrect or incomplete facts, or representations or implications that are likely to cause the average person to misunderstand or be deceived.

Competition—Some competitive practices accepted in ordinary commercial and industrial enterprises—where profit-making is the primary objective—are inappropriate among physicians. Commercial enterprises, for example, are free to solicit business by paying commissions. They have no duty to lower prices to the poor. Commercial enterprises are generally free to engage in advertising "puffery," to be boldly self-laudatory in making claims of superiority, and to emphasize favorable features without disclosing unfavorable information.

Physicians, by contrast, have an ethical duty to subordinate financial reward to social responsibility. A physician should not engage in practices for pecuniary gain that interfere with his medical judgment and skill or cause a deterioration of the quality of medical care. Ability to pay should be considered in reducing fees, and excessive fees are unethical.

Physicians should not pay commissions or rebates or give kickbacks for the referral of patients. Likewise, they should not make extravagant claims or proclaim extraordinary skills. Such practices, however common they may be in the commercial world, are unethical in the practice of medicine because they are injurious to the public.

Freedom of choice of physician and free competition among physicians are prerequisites of optimal medical care. The Principles of Medical Ethics are intended to curtail abusive practices that impinge on these freedoms and exploit patients and the public.

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Victims of the Time



NOLI C. GUINIGUNDO, M.D.
Brookville

I DID NOT WANT to look at their faces—their dirty clothes, their dirty faces begging to be washed, their dirty hands and fingernails all an aftermath of inflation and unemployment.

I normally don't accept Medicaid—not for the last 11 years of my 13 years of practice in Brookville. But this one problem really confronted me.

I wish they did not have to come to my office at this time. Those three kids—one is definitely congested, the other two full of rales and noisy breathing. All begging to be checked, to be examined.

I remember those horrible stories about inflation before I was even born. Most doctors had detailed this in their memoirs, in their recollection of the past—the past we all believed would never happen again. But here we are confronted with the sad realization that it is within us and affects us in every sense of the word.

Those parents were pathetic as they both looked at me as if in supplication to please check those three kids who are victims of the time.

Out of sympathy I went ahead and got my office girls to prepare these poor kids at the examining table. We took their temps and other vital signs. We took pain in checking them one by one to confirm my diagnosis and deductions. Those kids reminded me of that Charleton Heston Special on poor people of the world—how their horrible life history was related to the rest of the world, and at the same time flashing the toll free number that everyone could dial to send in his contribution. You would not believe malnutrition can happen in this great country—the proverbial land of milk and honey—but here's a perfect example of malnutrition and disease.

My office girls were instructed to prepare some medical samples those kind medical representatives leave on your table whether you like it or not. Those samples sometime clutter your office, but this was a chance to give them away to a good cause—a humanitarian action.

They left after a while. That left a void in me. Was that all I could possibly give to these unfortunate souls, whose only sin was to be born in this world, at the wrong time, in the wrong eon. . .

I would love to see them again but that pain in your heart gets in the way. Your heart still beats, but it is arrhythmic, a fact you and you alone knows and understands. . .

Correspondence: R.R. 4, Oxford Pike, Brookville, Ind. 47012.

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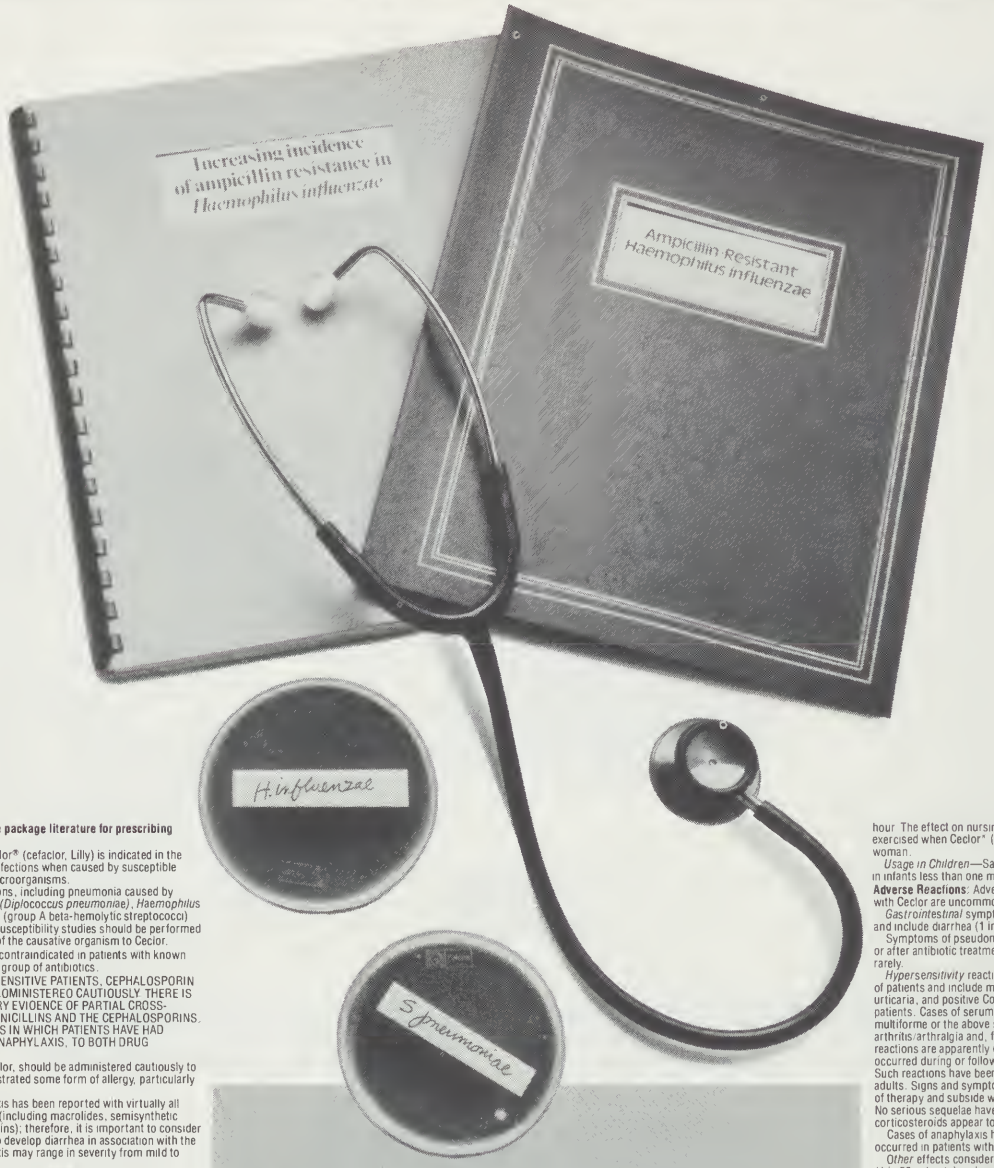
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An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions*—If an allergic reaction to Ceclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers—Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor® (cefaclor, Lilly) is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations of SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[0617B2R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.*

Note. Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

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2. Antimicrob. Agents Chemother., *11*:470, 1977.
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5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy). II:880. Washington, D.C., American Society for Microbiology, 1978
6. Antimicrob. Agents Chemother., *13*:861, 1978
7. Data on file, Eli Lilly and Company
8. Principles and Practice of Infectious Diseases (edited by G. L. Mandell, R. G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

300035

CME QUIZ

Ventricular Arrhythmias . . .

CONTINUED FROM PAGES 819-822

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, CME Division,** Fesler Hall 224, 1120 South Dr., Indianapolis 46223.

1. The clinical significance and prognosis of ventricular arrhythmias in an asymptomatic patient is best related to which one of the following:
   a) Age of the patient
   b) Presence of underlying heart disease
   c) Frequency of PVCs
   d) Presence of multiform PVCs
2. In patients who have hypertrophic cardiomyopathy, which one of the following statements is true?
   a) Ventricular arrhythmias are directly related to the degree of left ventricular outflow obstruction
   b) Antiarrhythmic treatment with disopyramide is contraindicated
   c) Propranolol is usually effective in eliminating ventricular arrhythmia in hypertrophic cardiomyopathy
   d) Ventricular arrhythmias are common in patients who have hypertrophic cardiomyopathy
3. For patients who have survived an acute myocardial infarction, which of the factors is directly related to long-term prognosis?
   a) The presence of frequent, isolated PVCs by 24-hour ECG recording
   b) The presence of left ventricular failure
   c) Both of the above
   d) None of the above
4. Which one of the following interventions has been demonstrated to improve survival in patients after acute myocardial infarction?
   a) beta-adrenergic blocking drugs
   b) coronary angiography
   c) procainamide
   d) digitalis
5. In mitral valve prolapse syndrome, which one of the following is an indication for antiarrhythmic treatment?
   a) Presence of a click and murmur at auscultation
   b) Symptomatic ventricular arrhythmia
   c) Greater than 10 PVC/hr on a 24-hour ECG recording
   d) Presence of abnormal ST and T wave segments on the resting ECG
6. A previously healthy, middle-aged patient is seen in the office for complaints of palpitation. A resting ECG discloses isolated PVCs which the patient states reproduce the symptoms. Which of the following steps should be taken next?
   a) Therapeutic trial of digitalis
   b) Therapeutic trial of procainamide
   c) Evaluate for presence of underlying heart disease
   d) Referral for coronary arteriography
7. In apparently healthy individuals which of the following statements are true?
   a) Only rare patients have PVCs by 24-hour ECG recording
   b) The presence of one or more PVC/hr adversely affects long-term survival
   c) Asymptomatic arrhythmias are best managed by low doses of quinidine or procainamide
   d) Ventricular arrhythmias are more commonly found in elderly patients
8. A 65-year-old man had an uncomplicated anterior myocardial infarction one week ago and is ready to leave the coronary care unit. Which of the following steps is recommended at this time?
   a) Prophylactic antiarrhythmic treatment with quinidine or procainamide
   b) ECG monitoring during progressive ambulation and rehabilitation
   c) Make plans for coronary arteriography and possible coronary bypass surgery for the next one-two weeks.
   d) All of the above
9. An otherwise healthy 40-year-old woman has had frequent, disabling palpitations which have correlated precisely with the presence of frequent PVCs. Trials of propranolol and then digitalis failed to relieve her symptoms or decrease the arrhythmia but disopyramide at 150 mg every six hours produced a plasma concentration of 1.8 ug/ml and totally relieved her symp-

CONTINUED ON PAGE 854

NOVEMBER CME QUIZ Answers

Following are the answers to the CME quiz that appeared in the November 1983 issue of THE JOURNAL: "Rheumatoid Arthritis . . ." by Rose Spitz Fife, M.D.

1. a	6. b
2. d	7. c
3. c	8. a
4. c	9. c
5. b	10. b

Answer sheet for Quiz: (Ventricular Arrhythmias . . .)

1. a b c d	**6. a b c d**
2. a b c d	**7. a b c d**
3. a b c d	**8. a b c d**
4. a b c d	**9. a b c d**
5. a b c d	**10. a b c d**

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for this month's quiz, send your completed, signed application before Jan. 10, 1984 to the address appearing at the top of this page.



AUXILIARY REPORT

Hulda Classen (Mrs. Peter)
President, ISMA Auxiliary

Judy Koontz
President-elect
ISMA Auxiliary

The AMA Auxiliary is a nation-wide, volunteer organization made up of 80,000 physicians' spouses through county, state and national membership. The main goal on all levels is for these auxiliaries to use their talents and abilities to help their communities to strive for, achieve, and maintain optimum healthy living. The areas of primary concern are legislative activities affecting health issues, AMA-ERF fund raising to ensure quality education and equipment for medical students and schools, and public relations and support for the medical profession. The National Auxiliary acts as an umbrella for activities concerning the overall goals; the state auxiliaries act as the coordinating bodies; and the county auxiliaries implement the activities. As it has been said by auxilians before—"Together we can make a difference."

The AMA Auxiliary-sponsored LEADERSHIP CONFLUENCE was held in Chicago at the Drake Hotel from Oct. 9-11. The CONFLUENCE is designed to provide leadership training for county presidents-elect throughout the nation. Each state auxiliary is eligible to send a specific number of county presidents-elect determined by the total state membership. (This year, Indiana sent nine county presidents-elect). State presidents, presidents-elect, membership chairmen, and staff executives also attend, as do most national officers and committee members.

"CONFLUENCE", as described by my trusty little pocket dictionary, means: 1. A flowing together of two or more streams. 2. The point of juncture of such streams. 3. A gathering together. The AMA Auxiliary LEADERSHIP CONFLUENCE is a fantastic gathering together of county, state, and national auxiliary leaders who are interested in learning about and improving their leadership abilities.

It seems that the greatest gain from the CONFLUENCE experience by those who attend is the sharing of ideas, concerns, problems and possible solutions, and program ideas for community service. Not to be overlooked, are the lifetime friendships that begin at this meeting.

There were informal sessions beginning at 8 a.m. on Sunday for state presidents, presidents-elect, and staff executives chaired by the national regional vice presidents. A membership workshop followed for all state officers attending, including state membership chairmen. The speaker was Carol Benjamin, director of Marketing and Communications for the National Association of Business and Educational Radio. There was time in the late afternoon for consultations concerning county membership, county and state bylaws, and newsletters. The dinner speaker was John J. Coury, Jr., M.D., chairman of the Board of Trustees of the AMA. Dr. Coury spoke on such issues as Medicare, physicians incomes in relation to the total health dollar, DRGs, and physician competition.

On Monday, the 7:30 a.m. breakfast speaker was Margaret M. Graham, past president of the Association of Junior Leagues. Leadership seminars followed with each person attending three of the six sessions. The seminars were designed to strengthen leadership abilities and were conducted by experts on the subjects presented. The subjects were: AMPAC (American Medical Political Action Committee); Legislation How To's; Long- and Short-Range Planning; Communicating Orally; Parliamentary Procedure; and Organizational Financial Planning.

Tuesday began with a continental breakfast at 7 a.m. Six topic seminars designed as possible community projects were conducted by experts in each field. CONFLUENCE participants were assigned to attend three of her/his choice. Topics included were: Effective Parenting; Drunk Driving; Drug Abuse Prevention; Immunization; How to Implement a Health Improvement Program in Elementary Schools; and New Technology: Challenges to Parents.

Dr. James H. Sammons, executive vice president of the AMA, was the guest speaker at the Tuesday luncheon. He spoke on health issues concerning cost of medical care today, governmental cost regulation programs, and how auxilians might help medical societies in areas of legislation, public relations and education.

It was an extremely busy three days at the CONFLUENCE. It was a most educational, informative, and mind-stimulating experience. Thank you, Indiana physicians, for allowing and encouraging your spouses to attend!

Those attending from Indiana were: Hulda Classen-state president (Elkhart); Judy Koontz-state president-elect (Vincennes); Muriel Osborne-state membership chairman (Muncie); and Rosanna Iler-ISMA staff (Indianapolis). The nine county presidents-elect attending were: Lucreta Allen (Anderson), Ellaine Cox (South Bend), Darlene Deupree (Shelbyville), Mary Ann Haswell (Vincennes), Norma Helms (Munster), Marla Keppler (Marion), Jolene Meyers (Newburgh), Rosemary Moe (Indianapolis), and Sylvia Scheeringa (Fort Wayne).

CONFLUENCE is truly a time for "a flowing together of ideas." It is a time for some 450 medical auxiliary members to meet together to discuss issues and to share ideas. County presidents-elect, thank you for taking the time from your busy schedules to share and to care!

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NEWS NOTES

Here and There. . .

. . . **Dr. David J. Dwyer** of Noblesville discussed preventive medicine for adults during an October educational series at Riverview Hospital.

. . . **Dr. Joseph C. Copeland** of Anderson discussed Premenstrual Syndrome (PMS) during a September meeting sponsored by Community Hospital, Anderson.

. . . **Dr. Michael A. Borkowski** of South Bend participated in a four-part lecture series sponsored by the Arthritis Foundation in October.

. . . **Dr. Panayotis Iatridis** of Gary is this year's honorary general chairman of the Easter Seal Campaign for the American Lung Association of Northwest Indiana.

. . . **Dr. Edward S. Shelley** of South Bend has been named "Boss of the Year" by the St. Joseph County Chapter, American Association of Medical Assistants.

. . . **Dr. Wayne L. Gray** of Muncie discussed procedures for determining the need for heart surgery during an October meeting of the Renewed Hearts Club, Muncie.

. . . **Dr. Arnold L. Carter** of Muncie discussed Alzheimer's Disease during the October meeting of Muncie's Alzheimer's Disease and Related Disorders Family Awareness Group.

CME Quiz . . .

CONTINUED FROM PAGE 851

toms over the past month. The laboratory reports therapeutic levels of disopyramide are 2-4 ug/ml. Which step should you take?

a) Leave the therapy unchanged
b) Repeat the plasma drug concentration measurement
c) Increase the dose of disopyramide
d) Add another antiarrhythmic drug

10. Given our present state of knowledge, which of the following steps should be performed routinely to evaluate post-infarction ventricular arrhythmia?

a) Electrophysiologic study to determine whether arrhythmias can be induced
b) Signal-averaged electrocardiographic recordings to determine if there are late QRS potentials
c) Observation of spontaneous rhythms during ambulation
d) None of the above

. . . **Dr. Eliot M. Wallack** of Indianapolis discussed Parkinson's Disease during an October meeting in Indianapolis of the Parkinson Awareness Association.

. . . **Dr. Karl L. Manders** of Indianapolis participated in an October "Free Yourself from Pain" program in Lawrence, which was sponsored by the Pain Center of Community Hospital, Indianapolis.

. . . **Dr. Marjorie E. Lake** of Martinsville participated in a panel discussion on child sexual abuse during a meeting last month to combat the problem in Morgan County.

. . . **Dr. Dilip R. Kelekar** of Michigan City has been elected to fellowship in the American Academy of Orthopaedic Surgeons.

. . . **Dr. Theodore D. Arlook** of Elkhart discussed genital herpes during an October meeting of the Elkhart Area HELP Group.

. . . **Dr. Ara K. Yeretsian** of Merrillville was the featured speaker during an October community awareness seminar sponsored by the Alcoholism Institute of Methodist Hospital.

. . . **Dr. John C. Johnson** of Crown Point, chairman of the Indiana Emergency Medical Services Commission, will become Emergency Room supervisor at Porter Memorial Hospital next month.

. . . **Dr. Charles Fisch**, director of the Indiana University Krannert Institute of Cardiology, has won the American Heart Association's James Herrick Award for outstanding contributions to the study and treatment of heart disease.

. . . **Dr. Mark A. Ballard** of LaPorte and **Dr. John D. Roscoe Jr.** of Valparaiso have been certified by the American Board of Family Practice.

. . . **Dr. Michael J. Mirro** of Fort Wayne discussed physical exercise during an October program sponsored by Huntington Memorial Hospital.

. . . **Dr. Lowell W. Painter** of Winchester, 77, retired from active practice Oct. 1.

. . . **Dr. Robert C. Beeson** of Anderson, who finished third in the August 3,500-mile bicycle Race Across America, served as parade marshal of the Riley Festival in October.

. . . **Dr. Michael F. Deery** of Culver discussed foot care by diabetics during a September meeting of the Marshall County Chapter, American Diabetes Association.

. . . **Dr. Ryo S. Choi** of Noblesville and **Dr. Randall L. Oliver** of Evansville have been certified by the American Board of Family Practice.

. . . **Drs. Anil I. Bathia** of Valparaiso, **David Bell** of Terre Haute, **Valerie P. Jackson** of Zionsville, **Tulsi C. Sawlani** of Merrillville and **Larry L. Heck** of Indianapolis are new members of the American College of Radiology.

Fellowship Announced

Dr. Ronald C. Hamaker and Dr. Mark I. Singer of Head and Neck Surgery Associates, Indianapolis, have announced that the Head and Neck Surgery Associates Fellowship for 1983-1984 has been awarded to Dr. Herbert A. Daniels, U.S. Air Force.

Heads 50 Year Club

Dr. Harold C. Ochsner Sr., Indianapolis, is serving as the 23rd president of the Fifty Year Club of American Medicine. Dr. Ralph H. Riggs of Shreveport is president-elect and Dr. Donovan F. Ward, former AMA president, is secretary-treasurer.

The 1,700-member organization actively supports the AMA's Education and Research Foundation. It also works to focus attention on the need for geriatric medicine.

M.D. Training Opportunity

The Graduate School of Public Health, San Diego State University, is now accepting applications from physicians for career training in Maternal and Child Health. The nine-month course, which will begin in August 1984, leads to a Master of Public Health degree.

The school is also offering a 21-month training program for pediatricians in the field of Handicapped Children.

Direct inquiries to Helen M. Wallace, M.D., Division of Maternal and Child Health, Graduate School of Public Health, San Diego State University, San Diego, Calif. 92182.

Help for Referral Service

The Medical Referral Service of the Three Rivers Neighborhood Health Service in Fort Wayne has received a grant of $43,050 from Lincoln National Corporation. This is the second year that Lincoln National has underwritten the operating expenses for the low-cost health service.

Medical Referral Service provides assistance to low-income residents with non-emergency chronic health-care problems. A low fee, compatable with individual ability, is collected for each visit. More than 180 Fort Wayne physicians give volunteer assistance.

Lilly Lab Accredited

The Lilly Endowment Laboratory for Clinical Research at Wishard Memorial Hospital, Indianapolis, has been awarded a two-year accreditation by the Commission on Laboratory Accreditation of the College of American Pathologists.

The Lilly Clinic, established in 1926, now has 67 beds and numerous laboratories. It is one of the world's most complete clinical pharmacology laboratories. Its staff of 140 includes physicians, biochemists, microbiologists, pharmacologists, medical technologists and nurses.

Post Drops Tobacco Ads

Tobacco advertising will no longer appear in *The Saturday Evening Post* effective with its March 1984 issue, according to the Saturday Evening Post Society, publishers.

The Benjamin Franklin Society, owner of the *Post*, seeks to disseminate medical nutritional knowledge and to foster and support research on cancer and other diseases.

For the Asking . . .

Available to physicians for the asking are the following items:

● **"Choosing and Using a Wheelchair,"** a leaflet published by the National Easter Seal Society, covers fitting, selection, operation, and maintenance of wheelchairs. Wheelchairs are as individual as good-fitting clothing—every patient differs in some way from all others. Height, weight, abilities, limitations and lifestyle all influence selection. Single copies will be sent free in response to requests accompanied by a self-addressed, stamped, business-sized envelope. Write to National Easter Seal Society, 2023 W. Ogden Ave., Chicago 60612. Quantity rates are available.

● **"What Internists Should Know About DRGs,"** a guide published by the American Society of Internal Medicine, explains how Medicare's new hospital payment system based on diagnosis related groups may affect practice patterns and alter hospital medical staff relations. The 25-page document includes a listing of all 467 DRG categories. $2 each. Write ASIM, 1101 Vermont Ave., N.W., Suite 500, Washington, D.C. 20005.

● **"The PPO Perspective"** is another in a series of 8-page guides developed by ASIM to explore the administrative side of medical practice. It discusses preferred provider organizations, a rapidly expanding and diversified alternative health care delivery system. $2 each. Write ASIM, 1101 Vermont Ave., N.W., Suite 500, Washington, D.C. 20005.

Orphan Drug to Aid 3,000

Abbott Laboratories has introduced a drug to treat a group of rare hereditary metabolic disorders called hepatic porphyrias. About 3,000 patients in the United States are affected by the disease.

The drug was adopted by Abbott under the orphan drug program after it was approved by the FDA. The trade name is Panhematin, a brand of hemin. Distribution is specialized since the drug is unstable and must be maintained in frozen state until time for intravenous injection.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Amorini, Michael F., Columbus
Bojrab, Louis D., Carmel
Brunk, Glen A., Indianapolis
De Renne, Lawrence A., Valparaiso
Fiacable, Joseph P., Fort Wayne
Forgey, William W., Merrillville
Fulton, William H., Indianapolis
Hennessee, Samuel D., Carmel
Huus, John C., Evansville
Kuhn, Arthur J., Munster
Melchior, Jerome E., Vincennes
Musselman, Robert H., Fort Wayne
Oei, Tjien O., Indianapolis
Palmer, Barron M., Hammond
Patel, Dineschandra A., Munster
Percinel, Ahmet K., Evansville
Read, John E., Chesterton
Rusche, Thomas J., Evansville
Steele, Robert J., Kokomo
Thompson, Samuel R., Fort Wayne
Turgi, Robert W., Gary
Umolu, Anthony A., Michigan City
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Wilson, Fred M., Carmel
Zeier, Francis G., Evansville

I.U. STUDENT FORUM

IN SUPPORT OF SUPPORT PROGRAMS

Last month's edition of "I.U. Student Forum" dealt with the Faculty/Student Support Program that was initiated for first-year medical students at the Indianapolis Center during the 1981-82 year. The program was started in an attempt to assist students with their adjustment to the challenges and stress of medical school. This article will present the results of the study used to assess the efficacy of the program.

The evaluation of the Faculty/Student Support Program utilized a survey designed by the Dean's Office staff to measure the impact of the small group program on 12 personal needs identified by the evaluators as being important to first-year medical students. Freshman students and faculty who participated in the pilot program, as well as sophomores who had attended the Indianapolis campus during their freshman year but did not participate in the Faculty/Student Support Program, completed the survey questionnaire. The needs assessed in the survey were:

1. Becoming generally acquainted with classmates.
2. Developing close personal friendships with some classmates.
3. Help with anxieties about starting school.
4. Gaining a better understanding of expectations (academic requirement/time commitments) of medical school.
5. Getting to know classmates socially.
6. Getting to know faculty better.
7. An upperclassman serving as an informational resource and/or academic counselor (not a tutor).
8. Help with academic difficulties/frustrations.
9. Help with personal difficulties/frustrations.
10. A faculty member serving as an informational resource and/or academic counselor (not a tutor).
11. An upperclassman serving as a personal counselor.
12. A faculty member serving as a personal counselor.

The students were asked to rate the level of importance of the 12 personal needs as well as the extent to which school-supported programs were helpful in satisfying these needs. Analysis of the evaluation data showed that freshman and sophomore students placed similar levels of importance on these documented needs. The first four items listed above were rated most highly in importance by incoming freshman medical students. Demographic characteristics of the participants such as age, sex, marital status and size of undergraduate institution did not generate any polarity in their responses.

In assessing the effectiveness of school-supported programs in meeting these specific student needs, the freshman ratings exceeded those of the sophomores. The only difference in their orientation programs was the Faculty/Student Support Program undertaken by the freshmen. More specifically, the three areas cited by the freshmen as being the most facilitated by the small group program were also the three most highly rated in importance to the freshmen students.

Evaluation results indicate the Faculty/Student Support Program was successful in achieving two main objectives: 1. increasing intraclass student communication and support and, 2. decreasing student anonymity. The students identified the program's strengths in promoting



student rapport and adjusting to the stress of medical school. Written comments by the students recognized that "increased peer interaction and a sense of camaraderie" were fostered by the small groups. However, students judged the program as only moderately beneficial in increasing faculty/student communication and in providing a better understanding of expectations of medical school.

There was a generally favorable reaction from the faculty who participated. Evaluations included comments such as, "I feel the students benefited from the program principally by interacting with faculty and peers in an informal setting and knowing that someone cared and was willing to deal with them on a personal basis. . . . I strongly feel that simply making the effort helps the student to better cope with the 'stress' that is so evident during the first year."

Suggestions from the faculty for further improvement of the program included "having the faculty advisor meet individually with each student in his/her group once or twice a semester." Faculty/student group interaction could also be encouraged in more informal settings such as dinners, student picnics, social events and intramural sports.

"I.U. Student Forum" will continue to present information on various school programs of interest in future articles. We extend our wishes to all for a very happy Holiday Season!

Story by Allison Vidimos and Brad Bengtson, Indiana University medical students and members of THE JOURNAL'S Editorial Board. MERP photo by Richard Hawrylkiewicz.

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The 1983 Convention

House of Delegates Actions

Resolutions acted upon by the 1983 House of Delegates appear verbatim elsewhere in this section. Following is a summary of those actions:

- **PRO.** That the ISMA apply for designation as the sole, statewide Professional Review Organization for Indiana.
- **DRGs.** That the ISMA develop public and internal information programs regarding the effects of Diagnosis Related Groups legislation on health care.
- **Drunk Driving.** That the ISMA, in reaffirming the pledge of its Ad Hoc Committee to Reduce Drunk Driving to reduce deaths and injuries due to drunk driving by 50%, have its Indiana AMA delegation urge the AMA to adopt this same commitment as a national goal.
- **VIP.** That, concerning the Blue Shield Voluntary Incentive Program, the ISMA Board of Trustees continue timely negotiations with the Blue Shield Board, not precluding legislation and litigation as a means of redress.
- **Physician Impairment.** That a statewide meeting be held in the spring of 1984 concerning physician impairment.
- **Sports Medicine.** That the ISMA establish a Commission on Sports Medicine.
- **Geriatrics.** That ISMA establish an Ad Hoc Geriatrics Committee to study the special needs of people in this group and to communicate with geriatric organizations.
- **Water.** That the ISMA contact the World Health Organization regarding concern over health problems aggravated by water supply and sanitation and ask for information about the status of such projects and how we can participate.
- **Foot Surgery.** That hospitals grant surgical staff privileges in a manner that assures the highest specialized competency in both limited licensed and fully licensed practitioners who perform foot surgery.
- **Medical Examiner.** That the ISMA, through its legal staff, seek funding and implementation of a district medical examiner system to assist coroners' offices.
- **Nursing Homes.** a) That the ISMA recommend to the Indiana State Board of Health a change in inspection protocol to allow improved medical care for nursing home patients; b) That nursing homes in Indiana be urged to admit patients over the weekend; c) That unnecessary nursing home placement be discouraged by substituting community programs with the support of private personal physicians; and d) That the ISMA support the Board of Health in its efforts to interpret regulations with cost containment in health facilities as their primary goal rather than punitive regulation.

Medical Care in a Changing Society

More than 900 physicians, their spouses and guests from throughout Indiana and surrounding states attended the 134th annual convention of the Indiana State Medical Association Oct. 14-17 at the Executive Inn in Evansville.

The theme for this year's program was Medical Care in a Changing Society and featured a special program, "Changing Concepts in Medical Practice," on Saturday, Oct. 15. This special program included such national policy-makers as James E. McCarty, assistant to the director, Bureau of Competition, Federal Trade Commission.

Dr. John A. Knote, ISMA president, said this special program was designed to educate Indiana physicians about what he calls the "alphabet practices"—HMOs, IPAs, PPOs—and other government plans for pre-payment of physicians developing around the nation. "Our society is changing almost daily it seems, and those changes will have a profound effect on the practice of medicine. Keeping Indiana physicians informed of how those changes affect us, our practices and our patients is an essential part of ISMA's function."

And while the 200-member House of Delegates discussed the social, economic and political issues, other physicians attended section and specialty society meetings which offered approximately 14 hours of credit for continuing medical education.

Some of the subjects discussed at the section meetings were: "Protecting the Interests of Patients and Physicians," "Help Your Patients Quit Smoking," "Doc, Think I Need A Check-Up? And Other Tough Questions," "Cold Weather Injuries," and "Depression."

In addition, at the opening session of the House of Delegates, Friday, Oct. 14, Harry Schwartz, Ph.D., writer-in-residence, College of Physicians and Surgeons, Columbia University, addressed "The Future of American Medicine," and Republican Senator Joseph Harrison, Attica, Ind., was the featured speaker at the Indiana Medical Political Action Committee luncheon on Saturday, Oct. 15. Senator Harrison's lively talk was entitled, "Sorry, I'm Too busy!"

Thirty-eight ISMA physicians who have practiced medicine for 50 years or more were recognized as new members of the 50 Year Club at a luncheon on Saturday, Oct. 15, and special awards in the fields of journalism and community service were presented at the first session of the House of Delegates by Dr. Knote.

Changing Concepts in Medical Practice

For the first time in 134 years of annual meetings, the focus of guest speakers at the Indiana State Medical Association convention was shifted from the usual scientific and medical topics to socioeconomic issues. Speakers from throughout Indiana and from Washington, DC, New York, West Virginia, Wisconsin and California were tapped to provide their expertise and insights about alternative health care delivery systems and innovations in medical practice.

Harry Schwartz, Ph.D., editor of *Private Practice* magazine and writer-in-residence at Columbia University College of Physicians and Surgeons, addressed the opening session of the ISMA House of Delegates Friday, Oct. 14, on "The Future of American Medicine." An outspoken, hardhitting speaker, Schwartz has predicted many changes for American medicine, including the possible rationing of medical care, the elimination of "Victorian rules" in medical practice and the need for marketing medicine as a business.

On Saturday, Oct. 15, nearly the full day was devoted to presentations by a variety of speakers during a special meeting titled "Changing Concepts in Medical Practice."

The meeting was opened by Dr. John Knote, ISMA president. Dr. Alvin J. Haley, Indianapolis, co-chairman of the statewide Indiana Business-Medicine Coalition, presented an update on the progress of the coalition movement in Indiana. Cooperation between county medical societies and local industry has been responsible for the formation of many coalitions throughout the state designed to enhance communication between physicians and the employers who pay the insurance bills for thousands of employees, while ways to cut health care costs and maintain high quality care are explored.

Dr. Martin J. O'Neill, Valparaiso, president and board chairman of the state's only physician-owned, ISMA-sponsored professional liability insurance company, Physicians Insurance Company of Indiana, presented an update on Indiana malpractice.

Dr. George E. Collentine, Milwaukee, spoke during the afternoon on Health Maintenance Organizations (HMOs). Preferred Provider Organizations (PPOs), one of the newest alternative health care delivery systems, was addressed by Dr. Edward Zalta, Glendora, Calif.

From the Federal Trade Commission (FTC) Bureau of Competition came James E. McCarty, assistant to the director, to discuss the FTC and its relations to the medical profession.

The survival of professional review organizations was addressed by Dr. Harry S. Weeks, Jr., Wheeling, W. Va. Dr. George T. Lukemeyer, newly installed ISMA president, presided over the wrap-up question-and-answer session and delivered closing remarks on the conference.

Call to Order, Miscellaneous Business

The House of Delegates convened its 134th Annual Convention, featuring the theme "Medical Care in a Changing Society," at 7 p.m., EST, Friday, Oct. 14, 1983, at the Executive Inn, Evansville, Ind. The final session of the House of Delegates convened at 9 a.m., EST, Monday, Oct. 17, 1983. Presiding at both sessions were Dr. Lawrence E. Allen, speaker, assisted by Dr. Shirley T. Khalouf, vice speaker. Dr. Lloyd L. Hill, Peru, served as parliamentarian. Invocation was given by Rev. Joseph Baus, First Presbyterian Church, Evansville.

Approval of Minutes

The proceedings of the 133rd Annual Meeting of the House of Delegates, held at the Holiday Inn North, Indianapolis (Oct. 15-18, 1982) and published in THE JOURNAL of the Indiana State Medical Association, December 1982, were approved.

Future Conventions

1984 - Oct. 19-22 - Indianapolis Radisson
1985 - Oct. 11-14 - South Bend Century Center
1986 - Oct. 9-13 - Indianapolis Radisson
1987 - Oct. 23-26 - French Lick
1988 - November - Indianapolis

Election of Officers

Dr. George T. Lukemeyer, Indianapolis, as president-elect, succeeded to the office of president. Dr. Lawrence E. Allen, Anderson, was elected president-elect. Other elections included:

Treasurer—Dr. George Rawls, Indianapolis
Assistant Treasurer—Dr. Max Wesemann, Franklin
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Vice Speaker of the House—Dr. Fred W. Dahling, New Haven
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Clerk/Chairman Pro Tem, Board of Trustees—Dr. Richard G. Huber, Bedford
Chairman and At Large Member, Executive Committee—Dr. Herbert C. Khalouf, Marion
At Large Member, Executive Committee—Dr. Michael O. Mellinger, LaGrange

Election of Delegates, Alternate Delegates to the AMA

The following were elected to two-year terms as delegates and alternate delegates to the American Medical Association, their terms to expire Dec. 31, 1985:

Delegates:

Dr. Marvin E. Priddy, Fort Wayne
Dr. Peter R. Petrich, Attica
Dr. Thomas C. Tyrrell, Hammond

In Memoriam

Tribute was extended to members of the Indiana State Medical Association who have died since the 1982 session:

William E. Adamson, M.D., Evansville
Robert T. Allen, M.D., Richmond
Ronald W. Barr, M.D., Fort Wayne
Robert R. Beach, M.D., Indianapolis
Abner P. Bennett, M.D., Evansville
Robert N. Bills, M.D., Merrillville
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John R. Frank, M.D., Valparaiso
Alejandro V. Gatmaitan, M.D., Knightstown
Douglas E. Glock, M.D., Marion
Robert F. Golding, M.D., Merrillville
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Eli Goodman, M.D., Charlestown
Hubert T. Goodman, M.D., Columbus, OH (formerly of Terre Haute)
Orville M. Graves, M.D., Princeton
Norval E. Green, M.D., South Bend
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Paul W. Haley, M.D., South Bend
James M. Hall, M.D., South Bend
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John E. Luzadder, M.D., Michigan City
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James M. McIntyre, M.D., Indianapolis
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John E. Miklozek, M.D., Terre Haute
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Herminio Y. Montes, M.D., Munster
Alfred E. Neale, M.D., Anderson
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Call to Order, Miscellaneous Business

Alternates:
Dr. Martin J. O'Neill, Valparaiso
Dr. Arvine G. Popplewell, Indianapolis
Dr. Vincent J. Santare, Munster

Elected/Reelected Trustees, Alternates—1983-84

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District 11 - Edward Langston, M.D., Flora
District 12 - Thomas A. Felger, M.D., Fort Wayne
District 13 - Steven Yoder, M.D., Goshen

Scientific Exhibit Awards

First Place: "Tourette Syndrome: Clinical Experiences"

Exhibitor: Donald A. Dian, M.D., Caylor-Nickel Hospital, Bluffton, Ind.

Second Place: "Head and Neck Cancer: Surgery with Radiation and Reconstruction"

Exhibitors: Joseph M. Poland, D.D.S., Ronald C. Hamaker, M.D., Newell O. Pugh, M.D., Mark I. Singer, M.D., and David B. Ross, M.D.

Third Place: (Joint exhibit) "Long-term Venous Access with Right Atrial Silastic Catheters" and "Treatment of Hemorrhoids by Infrared Photo-Coagulation"

Exhibitor: R. M. Jager, M.D., Ph.D., Indianapolis.

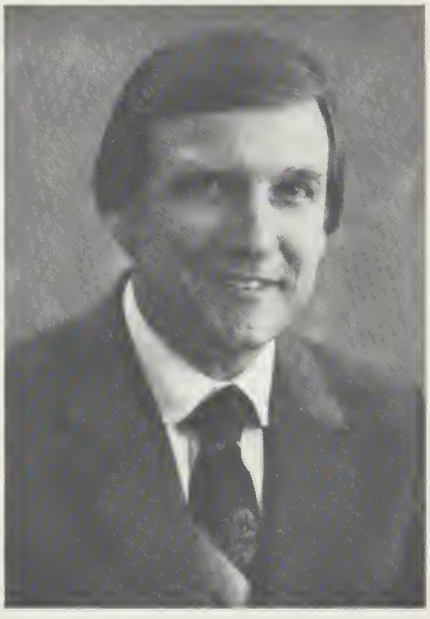
Dr. Allen Chosen President-Elect

Dr. Lawrence E. Allen of Anderson was chosen president-elect of the Indiana State Medical Association Oct. 17 during the 134th annual convention in Evansville.

Dr. Allen, a urologist, was elected by the 200-member House of Delegates during the final session of the House. He will assume the presidency of the ISMA at its 135th annual convention in Indianapolis in October 1984.

Dr. George T. Lukemeyer, a specialist in internal medicine in Indianapolis, succeeded Dr. John A. Knote of Lafayette as president. (Dr. Lukemeyer was featured in an article in the November issue of THE JOURNAL.)

Dr. Allen, who served as speaker of the House for ISMA since 1980, received his medical degree from the I.U. School of Medicine in 1963 and an A.B. degree from Hanover College in 1959. A native of Bloomington, he completed five years of internship and residency programs at Methodist Hospital in Indianapolis before moving to Anderson.



A fellow of the American College of Surgeons and a diplomate of the American Board of Urology, Dr. Allen has served as instructor for the I.U. Medical Center senior elective course program and as a local and state board member for the American Cancer Society.

He has held offices in a large number of medical organizations including: delegate, ISMA; vice-speaker, ISMA House of Delegates; member, Executive Committee, ISMA; chief of surgery, Community Hospital, Anderson; president, St. John's Hickey Memorial Hospital medical staff; vice-chairman, Madison County Comprehensive Health Planning Council; and chairman, Medical Advisory Committee to Congressman Dan Burton.

Dr. Allen is a member of the Madison County Medical Society, ISMA, American Medical Association, Indiana Urological Society, American Urological Association, American College of Surgeons, American Association of Clinical Urologists, American Geriatric Society, American Fertility Society, North Central Section of AUA, Pan-Pacific Surgical Association, and Societe Internationale D'Urologie, United States.

He and his wife Lucreta have three children and reside in Anderson.

House of Delegates

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Vincent J. Santare, Munster
John W. Beeler, Indianapolis
Arvine G. Popplewell, Indianapolis
Alvin J. Haley, Carmel
Martin J. O'Neill, Valparaiso

SECTION DELEGATES

Allergy
Del: Paul D. Isenberg, Indianapolis
Alt: None

Anesthesiology
Del: Robert E. Longshore, Kokomo
Alt: None

Cutaneous Medicine
Del: David H. Kingsbury, Indpls.
Alt: Charles Bartholome, Muncie

Directors of Medical Education
Del: Robert B. Chevalier, Indpls.
Alt: None

Emergency Medicine
Del: John C. Johnson, Crown Point
Alt: David R. Gettle, Carmel

Family Practice
Del: Bernard J. Emkes, Indianapolis
Alt: None

Internal Medicine
Del: James E. Cassady, Indianapolis
Alt: Ramon S. Dunkin, Indianapolis

Med Dir & Staff Phys of Nursing Fac
Del: Hugh K. Thatcher, Indianapolis
Alt: Davis W. Ellis, Rushville

Nervous & Mental Diseases
Del: Dwight W. Schuster, Indianapolis
Alt: Cherryl G. Friedman, Noblesville

Neurological Surgery
Del: None
Alt: None

Nuclear Medicine
Del: Robert W. Burt, Indianapolis
Alt: None

Ophthalmology
Del: Daniel Evans, Valparaiso
Alt: Terry W. Talley, Evansville

Orthopaedic Surgery
Del: Gilbert Gutwein, Lafayette
Alt: None

Otolaryngology, Head & Neck Surgery
Del: None
Alt: None

Pathology & Forensic Medicine
Del: Garry L. Bolinger, Indianapolis
Alt: None

Pediatrics
Del: Robert M. Sweeney, South Bend
Alt: None

Public Health & Preventive Medicine
Del: Robert W. Vermilya, Lafayette
Alt: None

Radiology
Del: John C. Spellmeyer, Richmond
Alt: None

Surgery
Del: Ted W. Grisell, Indianapolis
Alt: Fred Hillis, Logansport

Urology
Del: Neale A. Moosey, Indianapolis
Alt: None

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Gordon Hughes,
Indianapolis

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Norval S. Rich, Decatur

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Robert W. Dettmer, Fort Wayne
Thomas A. Felger, Fort Wayne
Fouad A. Halaby, Fort Wayne
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T. Neal Petry, Delphi

CASS (1)
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Olegario J. Ignacio, Jeffersonville

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Tom Scherschel, Kokomo

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*** D. C. Valenzuela, Vevey

JENNINGS (1)
*** James Calli, Sr., North Vernon

JOHNSON (1)
Merrill M. Weseman, Franklin

KNOX (1)
Walter R. Vaughn, Vincennes

KOSCIUSKO (1)
Wymond B. Wilson, Mentone

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John A. Egli, Topeka

LAKE (13)
Floyd Manley, Hammond
Mary E. Carroll, Crown Point
David M. Harvey, Munster
Walfred A. Nelson, Gary
Barron M. F. Palmer, Hammond
Nicholas L. Polite, Hammond
Daniel T. Ramker, Hammond
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William Sabo, Munster
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George Rawls
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Robert L. Rudesill
Donald M. Schlegel
Richard B. Schnute
* Gerald C. Walthall
Edward K. Wheeler
Douglas H. White

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*Missed first session
**Missed second session
***Missed both sessions

House of Delegates

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MIAMI (1)
James E. Duncan, LaFountaine

MONTGOMERY (1)
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** J. F. Swaim, Rockville

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Robert A. Ward, Tell City

PIKE (1)
** Donald L. Hall, Petersburg

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John L. Swarner, Jr., Valparaiso

POSEY (1)
** John Vogel, Mt. Vernon

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** W. R. Thompson, Winamac

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RUSH (1)
Ordonio J. Reyes, Rushville

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Kenneth Cline, Wyatt
Alfred Cox, South Bend
Robert D. Dodd, South Bend
G. Richard Green, South Bend
Richard A. Schaphorst, Mishawaka
Lee Smith, Mishawaka

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*** Marvin L. McClain, Scottsburg

SHELBY (1)
Wilson L. Dalton, Shelbyville

SPENCER (1)
** Michael O. Monar, Rockport

STARKE (1)
*** Walter Fritz, Knox

STEUBEN (1)
Kenneth A. Bisson, Hamilton

SULLIVAN (1)
* Steve DuPre, Sullivan

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Thomas A. Bridge, Lafayette
George M. Underwood, Lafayette
Paul T. Maier, Lafayette
Barbara J. Bourland, Lafayette

TIPTON (1)
*** B. B. Burkhardt, Tipton

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Bryant Bloss, Evansville
Ray H. Burnikel, Evansville
Charles W. Hachmeister, Evansville
Eugene L. Hendershot, Evansville
Forrest F. Radcliff, Evansville
Bruce Romick, Evansville
Elizabeth Sowa, Evansville
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Joseph H. Selliken, Jr., Terre Haute
William L. Strecker, Terre Haute

WABASH (1)
Fred Poehler, LaFountain

WARRICK (1)
L. B. Asuncion, Boonville

WASHINGTON (1)
*** C. Stanley Manship, Hardinsburg

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WHITLEY (1)
*** Thomas G. Hamilton, Columbia City

RESIDENT DELEGATE
Rick E. Crawford, Evansville

STUDENT DELEGATE
Gordon Hughes, Indianapolis

Status of 1982 Resolutions

82-1 NOT ADOPTED

82-2 MEDICAL DEFENSE ..... implemented
Constitution and Bylaws

82-3 AMA DELEGATE SLOTTING ..... implemented
Constitution and Bylaws

82-4 REPORT OF RULES AND ORDER OF BUSINESS ..... implemented
Constitution and Bylaws

82-5 RENAME PRESENT ISMA SECTION ... see Res. 83-11
Section on Nervous and Mental Disorders

82-6 RECINDING RESOLUTION 62-26 ..... implemented
update policy manual

82-7 ENDORSEMENT OF AMA REPORT DD ..... endorsed
AMA Delegation

82-8 NOT ADOPTED

82-9 NOT ADOPTED

82-10 OPEN ULCERS-NURSING HOME PATIENTS ..... Apprised ISBH of ISMA concerns
Interspecialty Council on Scientific Affairs

82-11 TURBERCULIN TESTING—N.H. PATIENTS ..... Apprised ISBH of ISMA concerns
Interspecialty Council on Scientific Affairs

82-12 HEALTH CARE COSTS ..... implemented
Staff PR Team/ISMA Auxiliary

82-13 NOT ADOPTED

82-14 STRUCTURE OF EXECUTIVE COMMITTEE ..... implemented
Constitution and Bylaws

Board of Trustees to study functions of Executive Committee and report to the 1983 House. — see Board supplementary report

82-15 HONORARY MEMBERSHIP FOR ROBERT YOHO ..... Dr. Yoho notified

82-16 NOT ADOPTED

82-17 and 82-18 JCAH PROPOSALS ..... implemented
AMA Delegation

82-19 AD HOC COMMITTEE ON DRUNK DRIVING ..... implemented

82-20 COST CONTAINMENT-INDEMNITY INSURANCE ..... Indiana Bus-Med Coal implementing
Subcommission on Insurance

82-21 FLEXIBLE INTERNSHIP ..... implemented
AMA Delegation/Comm. on Med. Ed.

82-22 HEALTH INSURANCE PARTICIPATION AGREEMENTS ..... see Res. 83-28
Board of Trustees/ISMA Staff

81-11 RESIDENT MEDICAL SOCIETY ..... implemented

81-7 and 81-22 CHANGE OF ISMA DISTRICT BY DUBOIS COUNTY
CHANGE OF ISMA DISTRICT BY HUNTINGTON COUNTY ..... see Board supplementary report

In its report, Reference Committee No. 2 recommended that both resolutions be adopted. The Reference Committee further recommended the Board of Trustees consider the topic of appropriateness of our present district geographical structure, and report back to the House of Delegates at its next meeting. It was recalled in the executive session of Reference Committee No. 2 during its 1982 deliberations that the Board had, in fact, neglected to make said report.

81-19 STATEWIDE REVIEW AUTHORITY .... Implementing with letter to HHS and Res. 83-27
Commission on Medical Services

81-32 STATEWIDE UTILIZATION REVIEW ORGANIZATION ..... Implementing with letter to HHS and Res. 83-27
Commission on Medical Services

RESOLUTION 83-1
Introduced by: Indiana Orthopaedic Society
Subject: Foot Surgery
Referred to: Reference Committee No. 5
ACTION: Adopted as amended.

Whereas, Many patients are being seen with painful plantar scars, neuromata, adherent extensor tendons, improperly done metatarsal osteotomies, and chronic, low-grade inflammatory reactions in post-operative foot wounds; therefore be it

Resolved, That Indiana State Medical Association officers discuss these problems with all organizations of practitioners who do foot surgery, and be it further

Resolved, That close monitoring of foot surgeries be done by hospital surgical, infection, and tissue committees, and be it further

Resolved, That granting of surgical staff privileges in hospitals be done in a manner to assure the highest specialized competency in those practitioners, both limited licensed and fully licensed, doing foot surgery.

RESOLUTION 83-2
Introduced by: Commission on Medical Education
Subject: Commission on Medical Education Bylaws Update
Referred to: Reference Committee No. 2
ACTION: Adopted.

Whereas, In order to more accurately reflect the change of the Commission on Medical Education as defined in 7.0809 of the ISMA Bylaws; therefore be it

Resolved, That Section 7.0809 of the Bylaws be amended to read:

"7.0809 The Commission on Medical Education: The Commission on Medical Education shall maintain liaison with and be of assistance to medical schools and the medical licensing board. It shall keep in contact with and endeavor to assist in improving and maintaining high quality undergraduate, graduate and continuing medical education and public school health education within the state. The Commission on Medical Education with the assistance of its Subcommission on Accreditation shall serve as the Indiana State Medical Association state's accrediting body to accredit institutions and organizations for the presentation of intrastate continuing medical education programs."

RESOLUTION 83-3
Introduced by: Commission on Constitution and Bylaws
Subject: Intern and Medical Resident; Medical Student Societies
Referred to: Reference Committee No. 2
ACTION: Adopted as amended. Roll Call Vote (137-1) on Dues Structure

Resolved, A new Section 12.00 and its subsections be added to the current Bylaws. All following sections/subsections be renumbered accordingly.

12.00 OTHER COMPONENT SOCIETIES

12.01 Charters: All component societies now in affiliation with this Association and those which may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and Bylaws, or those of the American Medical Association, shall receive a charter from and become a component part of this Association. The acceptance or retention of this charter shall be regarded as a pledge on the part of said component society to conduct itself in harmony with the letter and spirit of this Constitution and Bylaws and other rules and resolutions of this Association. Charters shall be issued only upon approval by the Board and shall be signed by the President and Executive Director of this Association. The Board shall have the authority to revoke the charter of any component society whose actions are in conflict with the letter and spirit of this Constitution and Bylaws or those of the AMA.

12.02 Constitution and Bylaws: Each component society shall have its own Constitution and Bylaws, which shall not be in conflict with the Constitution and Bylaws either of this Association or the American Medical Association. An up-to-date copy thereof shall be filed with the Executive Director of the Indiana State Medical Association not later than May 1 of each calendar year, or where such copy is so on file and no change has been made, then it shall be sufficient to file a certificate to that effect with the Executive Director.

12.03 Intern and Resident Medical Society (IRMS):

12.0301 Composition: Residents or Interns enrolled in AMA accredited programs in the State of Indiana shall be eligible to join the Intern Resident Medical Society with all rights and privileges as a regular member of ISMA. This society shall be allowed to send one delegate or alternate delegate to the House of Delegates with full voting privileges. Any member of this society shall be eligible to hold office. There shall be only one IRMS.

12.0302 Organization: This society shall be organized similarly to other component medical societies. Upon call of the President, all eligible interns and residents shall be invited to join the IRMS by attending an organizational meeting as soon as expeditiously possible. Appropriate officers shall be elected by those in attendance in order to conduct the affairs of this society. This society shall then become a component medical society.

12.0303 Secretarial Duties: The Secretary of the IRMS component society shall keep a roster of all its members in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary.

12.0304 Dues: The IRMS member shall pay dues to ISMA at 10% that of the regular member, rounded off to the nearest whole dollar which shall entitle the member to full rights and privileges of ISMA membership. These dues shall be collected in accordance with ISMA Bylaws. No relief of dues shall be possible.

12.04 Medical Student Society

12.0401 Composition: Medical students actively enrolled in an accredited medical school in Indiana are members of this society with all rights and privileges as described in 1.0104.

12.0402 Organization: The Student Council of the Indiana University School of Medicine shall elect a student delegate and alternate delegate from nominees presented to them from each class. All resolutions introduced in the name of the student body must be presented through the Student Council functioning as the executive body of the student members - in effect, a student component society.

12.0403 Dues: Medical Student members shall be assessed no dues, but may subscribe to THE JOURNAL at the current rate determined from time to time by the Board of Trustees.

12.0404 Secretarial Duties: The Secretary of the Student Medical Society shall submit to ISMA each year a roster of medical students actively enrolled in an accredited medical school in Indiana.

RESOLUTION 83-4

Introduced by: Commission on Constitution and Bylaws
Subject: Section 12.09, Page 92, ISMA Bylaws "Recommendation of Nominees to the Board of Directors of Mutual Medical Insurance Inc."
Referred to: Reference Committee No. 2
ACTION: Adopted.

Resolved, That section 12.09 be deleted from the Indiana State Medical Association Bylaws.

RESOLUTION 83-5

Introduced by: Commission on Constitution and Bylaws
Subject: Quorums
Referred to: Reference Committee No. 2
ACTION: Adopted as amended.

Whereas, Our current Bylaws do not specify the number of members needed to be present to constitute a quorum of the Executive Committee, ISMA commissions and ISMA committees; and

Whereas, Sturgis states, "Until a quorum is present, there can be no meeting"; therefore be it

Resolved, That a new section 6.02 be added to the Bylaws as follows:

6.02 Quorum: Four (4) voting members of the Executive Committee shall constitute a quorum. And be it further

Resolved, That a new section 7.06 be added as follows:

7.06 Quorum: Unless otherwise specified, one third (1/3) of the voting membership of a committee or commission shall constitute a quorum.

RESOLUTION 83-6
Introduced by: Ad Hoc Committee to Reduce Drunk Driving
Subject: Standing Committee of ISMA (Reduce Drunk Driving)
Referred to: Reference Committee No. 5
ACTION: **Adopted.**

Whereas, The Ad Hoc Committee to Reduce Drunk Driving has made a 10-year pledge to reduce drunk driving by 50% in five years and an additional 25% during the following five years; therefore be it

Resolved, That the present Ad Hoc Committee to Reduce Drunk Driving become a standing committee of the Indiana State Medical Association.

RESOLUTION 83-7
Introduced by: Ad Hoc Committee to Reduce Drunk Driving
Subject: Students Against Driving Drunk
Referred to: Reference Committee No. 5
ACTION: **Adopted as amended.**

Whereas, The Ad Hoc Committee to Reduce Drunk Driving has found Students Against Driving Drunk (SADD) to be a most worthwhile and productive organization; and

Whereas, The Ad Hoc Committee to Reduce Drunk Driving has gone on record in support of SADD; therefore be it

Resolved, That the component county medical societies of ISMA recognize Students Against Driving Drunk; and therefore be it further

Resolved, That the county medical societies assist their high schools in the implementation and/or functions of SADD.

Resolved, That a copy of this resolution be forwarded to the officers of SADD and that they be encouraged to call upon their county medical societies for assistance.

RESOLUTION 83-8
Introduced by: Ad Hoc Committee to Reduce Drunk Driving
Subject: Affirmation of Pledge to Reduce Death and Injuries Due to Drunk Driving
Referred to: Reference Committee No. 6
ACTION: **Adopted as amended.**

Whereas, The Indiana State Medical Association's Ad Hoc Committee to Reduce Drunk Driving has made a 10-year commitment toward the goal of reducing drunk driving, therefore be it

Resolved, That this House of Delegates reaffirm the pledge of the ISMA Ad Hoc Committee to Reduce Drunk Driving to reduce deaths and injuries due to drunk driving by 50%; and be it further

Resolved, That the ISMA call on the citizens of Indiana to adopt this same commitment as a statewide goal; and be it further

Resolved, That the Indiana AMA Delegation urge the AMA House of Delegates to call on the citizens of the United States to adopt this same commitment as a national goal.

RESOLUTION 83-9
Introduced by: Vanderburgh County Medical Society
Subject: Nursing Home Admittance
Referred to: Reference Committee No. 5
ACTION: **Adopted.**

Whereas, Some nursing homes do not admit hospitalized patients discharged on Friday until the following Monday; and

Whereas, This practice results in an unjustified extended stay in the hospital; and

Whereas, The patient's medical coverage may thus be denied for those days; and

Whereas, Hositalized care is more costly than care provided in nursing homes; therefore be it

Resolved, That nursing homes in Indiana be urged and encouraged to admit patients over the weekend.

RESOLUTION 83-10
Introduced by: Indiana Orthopaedic Society
Subject: Licensing of Athletic Trainers
Referred to: Reference Committee No. 3
ACTION: **Adopted as amended and referred to the Board of Trustees.**

Resolved, That the state of Indiana certify athletic trainers qualified by education and examination as meeting the standards of the National Athletic Trainers Association.

RESOLUTION 83-11
Introduced by: Section on Nervous and Mental Disorders
Subject: Rename ISMA Specialty Section
Referred to: Reference Committee No. 2
ACTION: **Adopted.**

Whereas, It is clearly recognized that Psychiatry and Neurology share many common areas of training and expertise necessary to the diagnosis and treatment of conditions involving the nervous system, and

Whereas, The title Nervous and Mental Diseases is antiquated and does not reflect the terminology now commonly employed by physicians and patients, and

Whereas, In recent years there has been an increased emphasis on Neurology as a specialty and an increasing division of practice into straight Psychiatry or Neurology with fewer physicians practicing the specialty of Neuropsychiatry, and

Whereas, It is increasingly common for hospital staff sections to be divided into separate Psychiatry Sections and Neurology Sections; therefore be it,

Resolved, That the Indiana State Medical Association change the name of the Nervous and Mental Diseases Section to a Section on Psychiatry and a Section on Neurology, but that each Section remember their commonality and be encouraged to work together and have some joint meetings to promote their mutual interests.

RESOLUTION 83-12
Introduced by: John A. Knote, M.D., President
Subject: Proportionate Representation for Medical Student Component Society
Referred to: Reference Committee No. 2
ACTION: **Referred to the Board of Trustees.**

Whereas, The future of medical practice belongs to the students; and

Whereas, There is greater and more appropriate involvement of medical students on a national level; and

Whereas, The Indiana State Medical Association has gained an alternate AMA delegate and an AMA delegate by virtue of including students in our membership count; therefore be it

Resolved, That a Medical Student Component Society is entitled to send voting delegates, the number based on membership in that society, to any official meeting of the ISMA House of Delegates.

RESOLUTION 83-13
Introduced by: Lake County Medical Society
Subject: Amendment to the Indiana Insurance Statutes
Referred to: Reference Committee No. 3
ACTION: **Referred to the ISMA Board of Trustees and Commission on Legislation.**

Whereas, It is common practice with insurance companies to honor the insured's assignment of his benefits to the qualified provider of his choice; and

Whereas, Insurance contracts which preclude such assignments may be detrimental to the physician-patient relationship and be unacceptable in principle to physicians; and

Whereas, The Indiana statutes dealing with payment of insurance benefits are ambiguous, particularly in regard to group contracts; and

Whereas, Recognizing his right to assign benefits to the provider preserves the insured's right to free choice of providers and promotes satisfactory physician-patient relationships; therefore be it

Resolved, That the Indiana State Medical Association undertake a legislative program to amend the Indiana insurance statutes to allow assignment of benefits at the written direction of the insured in both individual and group contracts.

RESOLUTION 83-14
Introduced by: John A. Knote, M.D., President
Subject: Past Presidents/IMPAC
Referred to: Reference Committee No. 3
ACTION: Adopted as amended.

Whereas, ISMA past presidents are among the most knowledgeable and experienced members in the state in political matters relating to our organization, and

Whereas, ISMA political activity must receive continual strengthening in order to perpetuate and improve the quality of medical care for our patients; therefore be it

Resolved, That the three most recent past presidents become ex-officio, non-voting members of the IMPAC Board.

Fiscal Note: $100.00 per meeting.

RESOLUTION 83-15
Introduced by: John A. Knote, M.D., President
Subject: Past Presidents/Commission on Legislation
Referred to: Reference Committee No. 3
ACTION: Adopted as amended.

Whereas, ISMA past presidents are among the most knowledgeable and experienced members in the state in political matters relating to our organization, and

Whereas, ISMA political activity must receive continual strengthening in order to perpetuate and improve the quality of medical care for our patients; therefore be it

Resolved, That the three most recent past presidents become ex-officio non-voting members of the Commission on Legislation.

Fiscal Note: $100.00 per meeting.

RESOLUTION 83-16
Introduced by: John A. Knote, M.D., President
Subject: New ISMA Commission on Substance Abuse
Referred to: Reference Committee No. 5
ACTION: **Not adopted.**

Whereas, Lives lost and dollars consumed by conditions and accidents related to substance abuse in America is one of our most tragic preventable situations; and

Whereas, The Ad Hoc Committee to Study Drunk Driving has made such an appropriate contribution to ISMA and to the safety and well-being of citizens of Indiana this year; therefore be it

Resolved, That a Commission on Public Awareness and Prevention of Substance Abuse be established within ISMA.

Fiscal Note: $500.00 per meeting.

RESOLUTION 83-17
Introduced by: John A. Knote, M.D., President
Subject: New Ad Hoc Geriatrics Committee
Referred to: Reference Committee No. 5
ACTION: **Adopted.**

Whereas, The percentage of patients in the geriatric group is increasing regularly; and

Whereas, The medical problems of the geriatric age group frequently require special attention or variation from approaches used with other age groups; therefore be it

Resolved, That an Ad Hoc Geriatrics Committee be established within ISMA to study the special considerations of patients in this group and to communicate with geriatric organizations; with the goal that this committee might ultimately become a commission.

Fiscal Note: $165.00 per meeting.

RESOLUTION 83-18
Introduced by: John A. Knote, M.D., President
Subject: Standing Commission of ISMA (Sports Medicine)
Referred to: Reference Committee No. 4
ACTION: **Adopted.**

Whereas, A significant portion of many members' patients have sports-related injuries; and

Whereas, A greater percentage of the U.S. gross national product is actually spent on sports and recreation than on medical care; and

Whereas, The outstanding performance of the Ad Hoc Commission on Sports Medicine this year has proven the potential for such a group within ISMA; therefore be it

Resolved, That a Commission on Sports Medicine be established within ISMA.

Fiscal Note: $500.00 per meeting.

RESOLUTION 83-19
Introduced by: John A. Knote, M.D., President
Subject: New ISMA Hospital Staff Section
Referred to: Reference Committee No. 6
ACTION: Not adopted.

Whereas, A hospital staff section, with voting delegate, has been created by the AMA; and

Whereas, Current government regulations may create and/or widen the communications gap and create deterioration of relationships between hospital medical staffs and hospital administration; and

Whereas, Indiana input into the AMA hospital staff section deliberations may well have been limited by the absence of a formal hospital staff section in our organization; therefore be it

Resolved, That a hospital staff section be established within ISMA in the same pattern as specialty sections.

Fiscal Note: $3,500.00

RESOLUTION 83-20
Introduced by: John A. Knote, M.D., President
Subject: Immediate Past President/AMA Delegation
Referred to: Reference Committee No. 6
ACTION: Not adopted.

Whereas, ISMA Bylaws now prohibit a member from holding two major offices; but

Whereas, The ISMA president-elect and president gain valuable exposure and experience at the national level during their participation in the Indiana Delegation at the annual and interim meetings; and

Whereas, The influence and impact of the Indiana Delegation on AMA deliberations, and the extension of ISMA philosophies across the country, might logically be enhanced by utilizing the reputation and contacts established during the president-elect and president years; therefore be it

Resolved, That an ISMA immediate past president may serve as an AMA delegate or alternate delegate if duly elected to that position by this House of Delegates.

RESOLUTION 83-21
Introduced by: John A. Knote, M.D., President
Subject: ISMA Application for Designation as Indiana PRO
Referred to: Reference Committee No. 3
ACTION: **Adopted, with change in fiscal note.**

Whereas, Current federal regulations mandate professional review organizations in each state in order to qualify hospitals for reimbursement for certain groups of patients; and

Whereas, Any group with demonstrated interest in performing professional review may apply to be the designated agency for an area or for the entire state; and

Whereas, The ISMA can unquestionably perform the professional review function better and more equitably than an individual county society, pre-existing PSRO or planning agency, or any insurance company; and

Whereas, The Federal Health Care Financing Administration (HCFA) has promulgated rules which provide for the creation of a Professional Review Organization (PRO) in each state; and

Whereas, The Indiana State Medical Association is the most representative of all physician organizations within the state; and

Whereas, Indiana physicians desire to have utilization review remain in the hands of physicians; and

Whereas, Failure of a physician organization to be designated as a PRO will likely result in a third-party carrier being designated; therefore be it

Resolved, That ISMA apply for designation as the sole, statewide PRO for Indiana, and that the Board of Trustees is hereby authorized to take all necessary steps to have ISMA designated as the PRO for the entire state of Indiana.

Fiscal Note: $15,000.00 for consultant fees to develop and submit proposal to HHS.

RESOLUTION 83-22
Introduced by: Lee Smith, M.D.
Subject: World Water Wager
Referred to: Reference Committee No. 6
ACTION: **Adopted substitute Resolution 83-22A, as follows:**

Resolved, That the ISMA through its Commission on Public Relations generate communication to the World Health Organization and other appropriate organizations of our concern regarding health problems aggravated by water supply and sanitation and request information regarding the status of such projects and how we may participate.

RESOLUTION 83-23
Introduced by: Gordon Hughes, M.S., Medical Student
Subject: Summer Jobs for Medical Students
Referred to: Reference Committee No. 5
ACTION: Adopted as amended.

Whereas, There is an ever increasing awareness of the need to introduce our younger physicians to the benefits and goals of organized medicine and thereby increase future membership as well as recruiting the future leaders of this organization; and

Whereas, It has become increasingly difficult if not impossible for many medical students to obtain summer employment between their first and second year of medical school; and

Whereas, Many physicians within our organization could temporarily employ a student from their town of residence during the vacation periods of other employees and thereby introduce a future physician to the non-academic side of medicine; therefore be it

Resolved, That the ISMA support the Indiana University Medical Alumni Association's effort to organize a volunteer program to match willing physicians with medical students from their respective communities for summer employment during the break between the first and second year of medical school.

RESOLUTION 83-24
Introduced by: Marion County Medical Society and
Vanderburgh County Medical Society
Subject: Mandate for Addition to Regulations and Regulatory Process to the Charge of the Commission on Legislation
Referred to: Reference Committee No. 2
ACTION: Adopted.

Whereas, "...to protect its members against imposition; and to enlighten and direct public opinion in regard to the great problems of medical care and public health so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and prolonging and adding comfort to life" are among the stated purposes of the Association set forth in Article II of its Constitution; and

Whereas, Section 7.08 of the Association's Bylaws directs that "Each committee and commission shall have the duty and responsibility of keeping constantly and currently informed on the matters within the area of its special interest and activity of studying the conditions within that area with the purpose of finding possibilities for improvement; of finding the best solutions it can to the specific problems referred to it; of contributing in its area to the achievements

of the Association as a whole in the protection and improvement of the health of the whole human family and finally of making all its efforts useful by passing on to the Association in the most effective manner possible the results of its studies and activities in its own area of special interest"; and

Whereas, these constitutional purposes and the intent of the Bylaws' directive to committees and commissions cannot be appropriately served by an organization which remains mute to the impact of regulations and the process by which regulations are promulgated, therefore be it

Resolved, That Section 7.010203 of the Indiana State Medical Association Bylaws be amended by the addition of the underlined phrases to read as follows:

7.010203 COMMISSION ON LEGISLATION

This Commission encompasses the fields of:

State Legislation
Federal Legislation
State Regulations
Federal Regulations

and be it further

Resolved, That Section 7.0808 of the Indiana State Medical Association Bylaws be amended by addition of the underlined words and phrases to read as follows:

7.0808 The Commission on Legislation: The Commission on Legislation shall study all legislation, regulations and regulatory proposals, both state and national, and all local legislative and regulatory trends and movements, as to their effect upon the practice of medicine and the protection of the public health; shall keep the profession informed at all times concerning the matters within its area of responsibility; shall conduct investigations of legislative and regulatory proposals; and shall maintain liaison with members of the State Legislature, United States Congress, state regulatory agencies whose scope and charge may affect the practice of medicine and the public health and welfare and with the legislative and regulatory activities of the American Medical Association. It shall strive to implement and make effective the legislative and regulatory proposals adopted by the Association but shall not abrogate its responsibility within the scope of this charge for want of a specific mandate from the House.

RESOLUTION 83-25
Introduced by: Fort Wayne Medical Society
Subject: Disability Insurance Form
Referred to: Reference Committee No. 4
ACTION: Referred to Board of Trustees and Commission on Medical Services.

Whereas, Most disability form inquiries regarding totality and permanency of disability are answerable only by responding "Yes or No", and

Whereas, Appropriately answering this question requires the physician to have full knowledge of the patient's vocational and educational background as well as

union contracts, insurance contracts, and alternative job classifications with his employer, and

Whereas, In many cases much of this information is unavailable to the examining physician, therefore be it

Resolved, That the ISMA by action at its official session seek to modify the question and provide more work related information.

RESOLUTION 83-26
Introduced by: Larry M. Davis, M.D., Chairman, Commission on Physician Impairment
Subject: Statewide Meeting on Physician Impairment
Referred to: Reference Committee No. 5
ACTION: Adopted, with change in fiscal note.

Whereas, The Indiana State Medical Association recognizes that a few Indiana physicians are impaired in their ability to practice competent medicine by drug abuse, psychiatric disorders or other difficulties; and

Whereas, We believe that fellow physicians are best equipped to identify, confront, rehabilitate and monitor these impaired physicians; and

Whereas, Special knowledge and skills are required to effectively perform these services for our fellow impaired physicians; therefore be it

Resolved, That a special statewide meeting be held in the spring of 1984 to discuss and teach knowledge about physician impairment and the process of effectively dealing with and helping these impaired physicians; and be it further

Resolved, To provide budgetary support for such a meeting to cover its expenses and to advertise its intent to physicians throughout the state who volunteer to participate in such a training program.

Fiscal Note: Up to $5,000.00, dependent on the level of interest.

RESOLUTION 83-27
Introduced by: Delaware-Blackford County Medical Society
Subject: Diagnosis Related Groups (DRGs)
Referred to: Reference Committee No. 6
ACTION: Adopted Substitute Resolution 83-27A, as follows:

Resolved, That ISMA support the goals and responsibilities of its member physicians by educational projects within our society so that we may continue to give medical services to our patients in our best professional judgment and intention within the constraints which will arise from this legislation; and be it further

Resolved, That public information programs regarding the effects of DRG legislation on health care also be developed and distributed, and be it further

Resolved, That funding for implementation of such programs be expedited by authorizing the Board of Trustees to utilize funds of the 1984-1984 dues increase. (Resolution 82-22)

RESOLUTION 83-28
Introduced by: ISMA Board of Trustees
Subject: Blue Shield Voluntary Incentive Program
Referred to: Reference Committee No. 4
ACTION: Adopted Substitute Resolution 83-28A, as follows:
(Richard Huber, M.D. requested that it be recorded he abstained from vote.)

Resolved, That the Blue Shield proposal (as presented in its entirety below) be rejected by the 1983 House of Delegates, and be it further

Resolved, That the Board of Trustees continue timely negotiations with the Blue Shield Board. Legislation and eventuality of litigation should not be precluded as means of redress.

July 17, 1983

TO: The Board of Trustees of the Indiana State Medical Association

RE: Blue Shield Voluntary Incentive Program (VIP)

At its meeting of July 17, 1983, the Board of Directors of Blue Shield of Indiana accepted a recommendation from its Executive Committee to consider restructuring our payment procedure for certain physicians servicing Blue Shield members. As you are aware, currently physicians participating in the Voluntary Incentive Program are paid directly, based upon the physician's contractual agreement to accept that payment in full. For those physicians choosing not to participate in the Program, payment is directed and payable to the member and the physician must look to his patient for payment.

The action of the Board today, proposes another option in our payment mechanism. If a non-participating physician elects by written designation on the Blue Shield claim form, we will agree to include the physician as a co-payee with the member on the claim check. The check will be sent to the member and negotiation of the check will indicate both parties' acceptance of the amount as payment in full. I am sure you will agree it would be unfair and unrealistic for this to be otherwise.

If this additional option is implemented, the Board has instructed me to carefully monitor its effect on VIP participation. Any decrease in participation could, at the Board's option, result in a reassessment of our position.

The Board has further directed me to request your consideration of this proposal at your Trustee's meeting scheduled on August 28, 1983. Absence of a written

response from ISMA prior to September 4, 1983 will result in our rescinding the action taken by the Blue Shield Board of Directors on July 17, 1983.

Sincerely,

(signed)
Richard C. Kilborn, President
Blue Shield of Indiana

RESOLUTION 83-29
Introduced by: Vigo County Medical Society
Subject: Change in Visitation of Medicaid Patients
Referred to: Reference Committee No. 6
ACTION: **Not adopted.**

Whereas, The intermediate and skilled nursing homes are staffed by licensed professionals who, under close supervision and consultation with attending physicians, are capable of determining the necessary care need of the patients there housed; and

Whereas, The physician-patient relationship is private and by choice of the patient, and the patient care should be determined by the patient, nurses in charge of the facility, and the patient's family; therefore be it

Resolved, That the Indiana State Medical Association support a change to the regulated visitations of Medicaid patients; and be it further

Resolved, That the ISMA support, through its AMA delegates, a resolution to be presented to the AMA for support at the national level.

RESOLUTION 83-30
Introduced by: Lake County Medical Society
Subject: District Medical Examiner System
Referred to: Reference Committee No. 3
ACTION: **Adopted.**

Whereas, The statutes in Indiana provide for a commission on forensic services; and

Whereas, The statutes also provide for the creation of a district medical examiner system to assist the coronors' offices; and

Whereas, This district medical examiner system is not operational because of a lack of funding; therefore be it

Resolved, That ISMA, through its legal staff, seek funding and implementation of this system.

RESOLUTION 83-31
Introduced by: Wayne-Union County Medical Society
Subject: Physician Patient Visits at Nursing Homes Conflicting with Inspection Protocol at the State Board of Health, Medicare, and Medicaid Inspection Teams
Referred to: Reference Committee No. 4
ACTION: **Adopted as amended.**

Whereas, Inspection and Visitation teams from Indiana State Board of Health inspect nursing homes periodically. As part of their requirements, the nursing homes are required to have re-certification documented at 30, 60, and 90 day intervals. Also, physicians' orders are required to be re-written and counter-signed at 30, 60, and 90 day intervals; and

Whereas, The visitation teams will write up or make some type of statement of non-conformity to the administration of the nursing home threatening to withhold approval; and

Whereas, Approval has to be obtained in order to obtain reimbursement from both State and Federal funds in patient care or charges; and

Whereas, Physician visits to the nursing home must be made at 30 day intervals on skilled patients and 60 day intervals on the intermediate patients; and

Whereas, Neither Medicare nor Medicaid will approve routine physician visits to nursing home patients before the 30 day interval. If these charges are made before 30 days, they are disallowed; and

Whereas, The above conflicts create an impossible visitation, billing, and conformity problem; therefore be it

Resolved, That the Indiana State Medical Association recommends to the Indiana State Board of Health a change in inspection protocol to allow certain leeways and/or variations in the dates of requirements for physicians' visits, chart documentation, and/or broader interpretations of the regulations so that good medical care can be provided to the nursing home patients.

RESOLUTION 83-32
Introduced by: The Indiana Chapter of the Association of American Physicians and Surgeons
Subject: Intrusion into Doctor-Patient Relationship (DRGs)
Referred to: Reference Committee No. 6
ACTION: **Adopted Substitute Resolution 83-27A, in lieu of Resolution 83-32**

RESOLUTION 83-33
Introduced by: Fort Wayne Medical Society
Subject: Medical Protective Company
Referred to: Reference Committee No. 4
ACTION: **Adopted Substitute Resolution 83-33A, as follows:**

Resolved, That the Indiana State Medical Association urge the Indiana State Insurance Commissioner to determine if denial of renewal of liability insurance coverage without giving a reason is a violation of any law, rule, or regulation.

RESOLUTION 83-34
Introduced by: Resident Medical Society
Subject: Reduction in Dues for Resident Members
Referred to: Reference Committee No. 2
ACTION: **Adopted Resolution 83-3, as amended in lieu of Resolution 83-34.**

RESOLUTION 83-35
Introduced by: DeKalb County Medical Society
Subject: Alternatives to Nursing Home Care
Referred to: Reference Committee No. 5
ACTION: **Adopted.**

Whereas, Nearly half of the health care dollars spent in Indiana are contributed to Nursing Homes; and

Whereas, Many patients in Nursing Homes do not require intermediate or skilled care; and

Whereas, Many patients residing in Nursing Homes could be satisfactorily cared for in their homes or in a residential setting within a community given proper support mechanisms; and

Whereas, Physicians can help organize the multiple supportive groups such as County Health Departments, Social Service Departments, family members, guardians, home health aides, Meals on Wheels, supportive neighbors and friends, Church Organizations, etc.; and

Whereas, There has been an increasing social trend towards early Nursing Home placement; therefore be it

Resolved, That the Indiana State Medical Association feels that it is important to do our part to limit unnecessary medical expenses in this area; and be it further

Resolved, That unnecessary Nursing Home Placement will be discouraged by substitution of positive and innovative community programs with support from the private personal physician, thus saving valuable health dollars for areas where improving technology continues to drive the expense of proper care upward.

RESOLUTION 83-36
Introduced by: DeKalb County Medical Society
Subject: State Board of Health Regulations on Nursing Homes
Referred to: Reference Committee No. 5
ACTION: **Adopted as amended.**

Whereas, The General Assembly's enactment of SEA60 has led to State Board of Health's Bureau of Health Institution Standards proposal of new regulations with many unreasonable fines and a proliferation of unnecessary guidelines; and

Whereas, The State Board of Health has never assumed a proper fiscal role in cost containment; and

Whereas, Overregulation has already led the health care industry into excessive spending and unnecessary proliferation of health care dollars, especially in Medicare and Medicaid patients in Nursing Homes, not to mention many of the regulations that have cost hospitals millions of dollars unnecessarily; and

Whereas, Physicians, hospitals and nursing homes are being required to exercise many measures of cost containment and perhaps even to the detriment of their financial vitality and survival; therefore be it

Resolved, That the Indiana State Medical Association go on public record as supporting the Indiana State Board of Health in its efforts to interpret regulations with cost containment as their primary goal in health facilities rather than punitive regulation.

PRESIDENTIAL RESOLUTION
ACTION: Adopted by acclamation.

Whereas, Serving as president of the Indiana State Medical Association demands enormous amounts of time and effort, family sacrifices and forsaking of personal freedom; and

Whereas, our president, John A. Knote, M.D., has exhibited strong leadership qualities in directing the affairs of the Association during a year of innovation and change, in which the Indiana Physicians Life Insurance Company merged with physician-owned companies from other states to form American Physicians Life, negotiations with Blue Cross/Blue Shield were pursued, new commissions and committees were formed to effectively meet the challenges of subjects such as drunk driving and sports medicine, a television series, "Heartbeat," to be broadcast nationwide was ISMA-sponsored and produced, and other actions were initiated; and

Whereas, He has faced the formidable pressures of outside influences and served as a spokesperson for the Association at the state and national level; and

Whereas, He has dedicated himself to strengthening the Association and organized medicine while expanding the benefits to individual member-physicians; now, therefore, be it

Resolved, That this House of Delegates express its heartfelt appreciation to John A. Knote, M.D., and wish him success in every endeavor.

RESOLUTION TO STAFF AND OTHERS
ACTION: Adopted by acclamation.

Whereas, Through the united effort of many individuals and groups the 134th annual convention is coming to a highly successful close; and

Whereas, the ISMA staff, in concert with the ISMA Commission on Convention Arrangements, have worked assiduously to make this convention the best ever; and

Whereas, The ISMA Auxiliary, Evansville Convention and Visitors Bureau, and Executive Inn staff, worked harmoniously with ISMA staff in assuring the efficient running of the convention; and

Whereas, The State Board of Health provided equipment and staff which helped make this a very successful convention; and

Whereas, Various contributors and technical exhibitors have assisted in the convention's education program; now, therefore be it

Resolved, That this House of Delegates, on behalf of the entire membership, express its sincere gratitude for a job well done to the ISMA staff and members of the Commission on Convention Arrangements; and be it further

Resolved, That this House also extend its thanks and appreciation to the ISMA Auxiliary, Evansville Convention and Visitors Bureau, Executive Inn staff, State Board of Health, and all those who contributed to the successful educational program during this 1983 convention.

RESOLUTION CONCERNING LAWRENCE PATTON MC DONALD, M.D.
ACTION: Adopted by acclamation.

Whereas, the Indiana State Medical Association is committed to preservation of individual life, and

Whereas, The Indiana State Medical Association is committed to preservation of National Life and upholds the perpetuation of the ideals upon which America was founded, and

Whereas, the Indiana State Medical Association supports in principle, the "preservation of the Constitution of the United States against all enemies foreign and domestic," therefore be it

Resolved, That the House of Delegates of the Indiana State Medical Association recognizes and commends our late colleague from Georgia, Lawrence Patton McDonald, M.D., M.C. for his unswerving support of these mutual aims, and condemns the Union of Soviet Socialist Republics for the wanton destruction of said Congressman McDonald and the other 268 members of K.A.L. flight 007 on August 31, 1983, and be it further

Resolved, That the Indiana State Medical Association House of Delegates submit copies of this resolution to Mrs. Kathy McDonald, The Honorable Ronald Reagan, President of the United States and to all members of the Indiana delegation to the United States House of Representatives as well as to Senators Quayle and Lugar.

RESOLUTION TO VANDERBURGH COUNTY MEDICAL SOCIETY STAFF AND AUXILIARY
ACTION: Adopted by acclamation.

Whereas, The very successful and productive 134th annual convention of the Indiana State Medical Association is drawing to a close; and

Whereas, The membership of the Vanderburgh County Medical Society and Auxiliary has acted as gracious and helpful hosts lending assistance and hospitality to all involved with the annual meeting; and

Whereas, The staff of the Vanderburgh County Medical Society and, of particular note, the Executive Director of the society, Carolyn Scruggs and the arrangements chairman Dr. and Mrs. Bruce Romick, who have worked tirelessly and cheerfully to help make the convention a success; now therefore be it

Resolved, That this House of Delegates express its heartfelt appreciation to the members and staff of the Vanderburgh County Medical Society and Auxiliary for their considerable contribution to the success of the 1983 convention.

Reference Committees

REFERENCE COMMITTEE NO. 1:
Reports of Officers
William C. VanNess, II, M.D., Alexandria, Chairman
(Madison County—District 8) FP
*Robert D. Dodd, M.D., South Bend
(St. Joseph County—District 13) FP
James L. Peters, M.D., Shelbyville
(Shelby County—District 6) FP
Paul T. Maier, M.D., Lafayette
(Tippecanoe County—District 9) CD
B.T. Maxam, M.D., Indianapolis
(Marion County—District 7) GE
Frederick H. Buehl, M.D., Vincennes
(Knox County—District 2) P

REFERENCE COMMITTEE NO. 2:
Constitution and Bylaws
Forrest F. Radcliff, M.D., Evansville, Chairman
(Vanderburgh County—District 1) ORS
William F. Kerrigan, M.D. Connersville
(Fayette County—District 6) AN
*William L. Strecker, M.D., Terre Haute
(Vigo County—District 5) AN
Garry L. Bolinger, M.D., Indianapolis
(Marion County—District 7) PTH
Laurence K. Musselman, M.D., Marion
(Grant County—District 11) P
William J. Sabo, M.D., Munster
(Lake County—District 10) ORS

REFERENCE COMMITTEE NO. 3:
Legislative
John D. MacDougall, M.D., Indianapolis, Chairman
(Marion County—District 7) TS
*Willard S. Krabill, M.D., Goshen
(Elkhart County—District 13) PH
Larry G. Cole, M.D., Yorktown
(Delaware-Blackford County—District 8) FP
Barbara J. Bourland, M.D., West Lafayette
(Tippecanoe County—District 9) PD
Walter R. Vaughn, M.D., Vincennes
(Knox County—District 2) U
James M. Rausch, M.D., Fort Wayne
(Allen County—District 12) R

REFERENCE COMMITTEE NO. 4:
Medical Education and Insurance
George M. Underwood, M.D., Lafayette, Chairman
(Tippecanoe County—District 9) FP
*A. Alan Fischer, M.D., Indianapolis
(Marion County—District 7) FP
Donald D. Cofield, M.D., Bloomington
(Owen-Monroe County—District 2) OPH
Mary E. Carroll, M.D., Crown Point
(Lake County—District 10) FP
Ray H. Burnikel, M.D., Evansville
(Vanderburgh County—District 1) CRS
Wymond B. Wilson, M.D., Mentone
(Kosciusko County—District 13) FP

REFERENCE COMMITTEE NO. 5:
Miscellaneous
Thomas A. Felger, M.D., Fort Wayne, Chairman
(Allen County—District 12) FP
*William E. Weber, Jr., M.D., Bloomington
(Owen-Monroe County—District 2) PS
Steve Foley, M.S., Indianapolis
(Student Council, I.U. Medical School)
Richard Pitman, M.D., Columbus
(Bartholomew County—District 4) DR
Thomas A. Neathamer, M.D., Jeffersonville
(Clark County—District 3) FP
Freeman Martin, M.D., Indianapolis
(Marion County—District 7) FP

REFERENCE COMMITTEE NO. 6:
AMA Matters
Charles E. Egnatz, M.D., Schererville, Chairman
(Lake County—District 10) FP
Marvin E. Priddy, M.D., Fort Wayne
(Allen County—District 12) FP
*Fred C. Poehler, M.D., Wabash
(Wabash County—District 11) AN
Russell L. Judd, M.D., Indianapolis
(Marion County—District 7) U
Gordon S. Fessler, M.D., Rising Sun
(Dearborn County—District 4) FP
Michael O. Monar, M.D., Rockport
(Spencer County—District 1) FP

*Assistant Chairman

RULES AND ORDER OF BUSINESS:
William C. VanNess II, M.D.
Forrest F. Radcliff, M.D.
John D. MacDougall, M.D.
George M. Underwood, M.D.
Thomas A. Felger, M.D.
Charles D. Egnatz, M.D.

CREDENTIALS COMMITTEE:
G. Beach Gattman, M.D., chairman
Loren H. Martin, M.D.
Jack Higgins, M.D.
Mary E. Carroll, M.D.

CHIEF TELLER:
Elizabeth Sowa, M.D.

PHOTOS BY JOYCE WOLF AND KARYL HANCOCK



From left, Dr. Paul Siebenmorgen, Dr. John A. Knote and Dr. George T. Lukemeyer.



Mayor Michael Vandeveer of Evansville addresses the House. At left is the speaker, Dr. Lawrence E. Allen.



Vanderburgh County delegates, Dr. Bryant A. Bloss and Dr. Charles W. Hachmeister.



Marion County delegates, Dr. Richard B. Schnute, Dr. Alan Fischer and Dr. Robert W. Mouser.



Marion County delegates, Dr. Robert L. Rudesill, Dr. George H. Rawls, Dr. David J. Need and Dr. Fred R. Dallas.



Dr. Knote (left), outgoing president, administers the oath of office to newly elected or re-elected ISMA officers.



Ruth Ifer (left) discusses Tourette Syndrome with a visitor. The exhibit won first place.



Dr. Michael B. DuBois, chairman of the Ad Hoc Committee to Reduce Drunk Driving, testifies at Reference Committee hearing.



Dr. Lukemeyer testifies during the Reference Committee hearing on AMA matters.







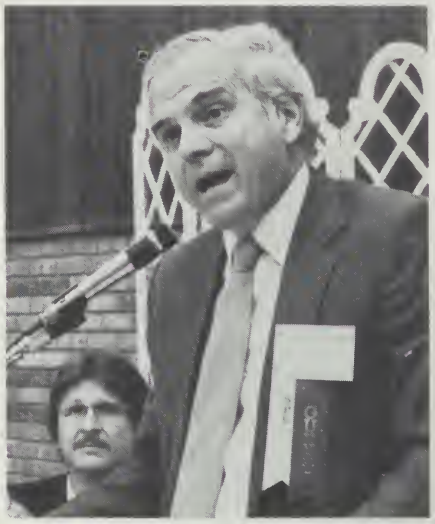
Dr. Paul Siebenmorgen, chairman of the Board of Trustees, presents recognition plaques to retiring trustees (from left) Dr. Donald S. Chamberlain, 13th District, Dr. Donald C. McCallum, 7th District, and Dr. John A. Bizal, 1st District.



McCarty



Gagle



Harrison



Collentine

Among the guest speakers for this year's convention were Dr. George E. Collentine of Milwaukee, discussing HMOs; James E. McCarty, assistant to the director of the FTC's Bureau of Competition; Barbara Gagle, administrator of Region 5 (Chicago), Health Care Financing Administration; State Senator Joseph Harrison of Attica, IMPAC luncheon speaker; and Dr. Harry S. Weeks Jr. of Wheeling, W. Va., discussing professional review organizations.



Weeks



Mrs. Carolyn Scruggs, executive director of the Vanderburgh County Medical Society, accepts recognition plaque from Dr. Knote for her assistance in arranging the convention in Evansville.



Dr. Frank Ramsey (left), editor of THE JOURNAL, conducts meeting of the Editorial Board. Listening are Dr. William D. Snively, Dr. Allen T. Marty and Dr. Richard N. Dexter. Dr. Dexter, CME director, I.U. School of Medicine, presented a summary of current CME activities.



Dr. Charles A. Bonsett (right), author of THE JOURNAL'S "Medical Museum Notes" column, chairs a meeting of his Medical History Committee.



Mrs. Hulda Classen, president of the ISMA Auxiliary, and Dr. Walter J. Daly, dean of the I.U. School of Medicine.



Auxiliary Day luncheon at the restored Evansville courthouse.



Dr. Clementine E. Frankowski of Whiting, newly inducted into the Fifty Year Club, is amused by a comment from Tony Thacker, Boots Pharmaceuticals representative.



Outgoing President John A. Knote presents the President's Medallion to Dr. George T. Lukemeyer.



Newly installed members of the ISMA Fifty Year Club. (A complete listing appears on page 919.)



Annual Past Presidents Luncheon.



Dr. Hoffman, winner of the Physician Community Service Award, poses with his family. Story on page 903.





Dr. Lukemeyer joined other ISMA conventioneers for a riverboat cruise aboard the Executive Queen.





About 250 doctors and their spouses enjoyed the evening cruise along the Ohio River, including (at right) Drs. Peter R. Petrich and Lawrence E. Allen.





The riverboat cruise featured a Las Vegas-style casino party.

ACTION: Filed.

Luke 12:54-56 ". . . When you see a cloud coming up in the west, you say that it is going to rain—and it does. When you feel the south wind blow you say that it is going to get hot—and it does. You can look at the earth and sky and predict the weather; why, then, don't you know the meaning of this present time?"

The "meaning of this present time" for Indiana doctors is that each member of the ISMA must become as involved as possible to preserve the quality of medical care and prevent third party (government, insurance companies, and employers) control. Each of us, as delegates and other leaders, must develop acquaintances with more legislators, develop more expertise in business and legislative matters and contribute more money—all the while maintaining or improving the quality of care we give our patients. We must return to our home areas and influence other doctors, as many as possible, to do the same. If we are unwilling to do these things we shouldn't be here.

This year has included activity in six primary areas. First, our legislative involvement was relatively intense. At the state level we struggled to hold our own; and we face important challenges again this year. At the national level we have excellent communications, but our legislators don't always consider our positions politically expedient. We must continue to emphasize the ISMA Legislative Commission and IMPAC activity as well as our personal political involvement on the local level.

Second, a very heartening focus of ISMA interest was the activity of young or newly involved members. The medical students' participation in ISMA activities and at the AMA level seemed to be greater than ever before. A staff liaison with the Medical Student Section was established. The Resident Section was formally organized. Three very active ISMA representative groups—the Impaired Physicians Commission, the Committee to Reduce Drunk Driving, and the Sports Medicine Committee—were chaired by members who had little or no prior ISMA activity. In addition, there was greater attendance by young members at the district meetings.

Third, our life insurance company continued to grow. We joined with several other states to form a larger company which has already expanded to include yet another state. Your review of personal policies and purchase of American Physicians' Life policies, if appropriate, will help you take advantage of the benefits for which this company was created. In this same area, the medical liability insurance company, PICI, is doing well from a policy sales standpoint; but purchase of stock in the company is a key factor in your receiving maximum benefit from this effort. Each delegate and society officer should obtain details on stock purchase. The surrounding states, with whom we are involved in this effort, have had unbelievable success; and we should magnify that experience in Indiana because of our medical liability law.



Dr. Knote

The fourth area of concern for ISMA has been medical licensing regulations. For years, ISMA has supported more appropriate Medical Licensing Board activity in order that we may truly "police our own" more effectively. At this time, we have several outstanding people on the board, and they are making large strides toward effective regulations. We initially had questions about some of the new regulations. The board's willingness to discuss possible improvements, ISMA Board of Trustees and Impaired Physicians Commission input, assistance from ISMA staff, plus Marion and Vanderburgh County Society suggestions, have led to more optimal licensing regulations.

The fifth area of major involvement has been representing ISMA—carrying our message to the district and county societies as well as to the AMA level. The most enjoyable part of the year for me has been the district and county society meetings. These are the places where the personal contacts are genuine, the questions sometimes tough, but the concern always valid. The Wells County reorganization meeting, after several years of dormancy in that county, was very rewarding. I also enjoyed the questions and comments by the very well informed physicians of Dubois County directed at a Blue Shield representative who was trying, unsuccessfully, to sell the concepts of the so-called VIP program to them. I had the opportunity, at the AMA Leadership Conference, to express the Indiana views on the JCAH regulations regarding the "medical staff" section to members of state societies from across the country as well as to certain of the AMA officers and staff who were discussing their position on that issue. The enthusiastic applause received, the verbal support offered by three AMA trustees afterward, and the offers of five states to join us in resolutions seemed to more than justify the presentation I made on your behalf and definitely supported Indiana physicians' thinking in this area. There's no question that we can have input for Indiana doctors at the AMA level. One of the keys is to ask that all who represent us there subjugate their own personal interests or aspirations to those of our state organizations while they are representing us.

Lastly, the most vexing of the major issues your ISMA officers, trustees, and staff have faced this year is the situation created by the Blue Shield participating/non-participating contracts (the so-called VIP program). We still haven't solved the problem. We are currently presenting for your consideration a proposal represented as a compromise by Blue Shield. The special reference committee hearing at this meeting will give, hopefully, a final forum for discussion of this matter. To close the matter for now, I'll just tell you that I abhor dealing with problems we didn't create ourselves. We have enough areas of concern regarding quality of medical care, membership services, and governmental

matters. At least we can try to vote out legislators who develop programs we don't like and we can do the same with elected representatives within our own organization. With the VIP our only choices seem to be a weak compromise or litigation. The compromise is limited to one area, and litigation frequently benefits only the attorneys, with no real gain from either perspective.

One other deserves attention—communication with the membership. A semi-annual report was rendered and was apparently well received. I attended all district meetings to present information and answer questions. There were communications regarding DRGs, the ISMA plane, and JCAH regulations published in THE JOURNAL. The program at this meeting is an attempt to give a more clear picture of some of the "alphabet practices" and help us also determine how we can strengthen traditional practice approaches if we must co-exist with the "assembly-line" types of convenience practices.

I have presented nine resolutions. Many of these items are not strong recommendations, but rather subjects with which you should all be familiar and on which you should have an opportunity to express your opinion. I do have strong recommendations about the Committee to Reduce Drunk Driving and the Ad Hoc Committee on Sports Medicine. They have been very effective, and I feel they should be given permanent status. I realize that the resolution on medical student delegates would give 24 to 30 votes to that section, and this may not be appropriate. However, I feel that student input has been so effective that they should possibly have more than one voting delegate in order to give them a greater voice in their future and to encourage more students to be involved in organized medicine.

The resolution recommending ISMA application for designation as the Indiana PRO is rendered with mixed emotions. Our organization can most likely serve the entire state better than a PRO administered by one county, and I know that we can serve our state better than an insurance company which apparently intends to apply for the PRO designation. There are several negative points to consider, but the federal laws have changed to the extent that we must once again discuss the possibility of ISMA overseeing a PRO activity.

The ISMA hospital staff section resolution is submitted simply because there's a similar section at the AMA level, and I believe the ISMA should function as a parent organization for all areas of the state to have organized input in this area. Our Board of Trustees feels that we should wait a few months until we determine the direction the AMA hospital staff section is taking. The choice is yours.

The formation of an Ad Hoc Geriatric Committee would allow ISMA to respond appropriately and formally to the many medical and socio-economic situations presented by the ever-increasing segment of our senior citizens.

The formal designation of past presidents as members of IMPAC and the ISMA Commission on Legislation follows an example used effectively in other states, outlines a concern I've had long before I became eligible to be involved in this position, and should help strengthen our organization. The resolution regarding the immediate past president serving as AMA alternate delegate or delegate may be too self-serving. If you feel it's not appropriate, vote it down. However, the idea was not proposed frivolously. I do believe we should make every effort to advance ISMA philosophy nationally; and the ISMA president makes many contacts which could possibly enhance our activity at the AMA level.

I leave you with two thoughts. Many of our problems with third party control could have been avoided if we had years ago insisted that insurance or entitlement payments be made to the patient and we had continued to deal directly with the patients for our fees. We should somehow return to that arrangement. Insurance companies and employers (and employee groups) should admit that deductible insurance policies or co-payments will be a major step toward efficient utilization of medical services. Maybe then we could alter the current government regulations which are undermining the quality of medical care.

The final thought I have is an emotion of intense gratitude to all of you who allowed me to serve in this position, to the officers and trustees whose wisdom was usually greater than mine, to all of the members who cared enough to pay their dues, attend society meetings, or correspond with questions or suggestions, and to ISMA's wonderful staff. I've gained so much more than I've given. I hope I'll have the opportunity to serve ISMA in other capacities. Thank you all very, very much!

Report of the President

REPORT prepared prior to Annual Convention

ACTION: Filed.

What an honor it has been to serve as your ISMA president for the past 12 months! The rewards and educational experiences have far out-weighed the negative aspects. If I have returned to the organization only a small fraction of what it has given to me, I consider the year a success.

This message is being prepared (for publication purposes) only three months after publication of our first-ever semi-annual report, and three months prior to the actual end of the ISMA year. Therefore, these remarks will identify specific events, accomplishments, and individuals that have stood out during the year. The president's address at the annual meeting will be directed toward general philosophies, politics, and trends in our profession.

Among the most enjoyable activities to date have been district and county society meetings. The greater attendance, younger average age, and quality of ideas expressed at the district and county society levels give renewed hope for the maintenance or our

profession plus the viability of our organization as an effective voice of medicine.

The combination of ever increasing membership interest and outstanding effort by the unparalleled ISMA staff has led to commission and committee achievements that are very gratifying. Specifically, the Drunk Driving Committee (Michael DuBois, M.D., chairman), the Sports Medicine Committee (Gary Prah, M.D., chairman) and the Physician Impairment Commission (Larry Davis, M.D., chairman) have achieved results about which you will be pleased to learn in their reports. I specifically recommend that the Drunk Driving Committee be continued as a Commission on Public Awareness of Substance Abuse. I also recommend establishment of the Sports Medicine Commission with the same full funding and status as other commissions.

Further commendations are due to such individual members as Jane Hoopes, M.D. of Evansville, Dennis Nicholas, M.D. of Indianapolis, and Ned Masbaum, M.D. of Indianapolis, who helped further the philosophy of ISMA by their personal involvement or were interested enough to submit potential solutions to problems that involve our organization. These three certainly are not the only individuals whose efforts were appreciated, but they do exemplify the many contributions. Special recognition should be accorded to people like Ed Langston, M.D. of Flora, who found time to participate in a very active family practice, serve as president of the Indiana Academy of Family Physicians and as an ISMA alternate trustee, plus serve as the Carroll County Republican chairman. Such commitment typifies the involvement we must have across Indiana and the nation if our patients and our profession are to be protected from bureaucrats and from those who would remand the present medical care structure to systems less capable.

Special thanks to the over 400 Indiana doctors who indicated, in response to the Indiana Society of Internal Medicine and subsequently to an ISMA questionnaire, that they would consider seeing additional economically distressed patients under modified arrangements. The ISMA has no interest in impacting any practice financially, but your response is an excellent beginning in our effort to demonstrate compassion and to participate in the finest tradition of Indiana practitioners during such an economic period.

I have serious concerns about three areas. Our individual involvement in the legislative process (knowing legislators personally, contributing time and money, and becoming knowledgable on the issues) must continue to improve if we are to protect our patients and preserve traditional medical practice.

Another source of consternation is that of a major third party insurance market (rather than as a cost control measure, as they originally stated). That company, it seems to me, has adversely affected doctor-patient relationships, and possibly limited a patient's choice of doctor, with potential deleterious effects on the ultimate health of the patients. This situation unfairly impacts the 95% (or more) of doctors whose charges are well within reasonable range. How unfortunate that the company has failed to accept actuarial and management problems as major contributors to its losses and attempted instead to shift the responsibility to doctors.

The third area of concern is that of Medical Licensing Board regulations. I hope that the board interprets its charge as one of guaranteeing that licensed practitioners of medicine have the stipulated training and are carrying out the type of practice indicated by that training. Attempts by the Medical Licensing Board, or an individual hearing officer of the board, to set fees for various levels of care or complexity of procedure would certainly limit free enterprise and very possibly have a negative effect on the quality of medicine practiced. Likewise, the direct reporting of any suspected medical practice impropriety to the Medical Licensing Board, without due process or adequate substantiation locally, may well lead to charges and countercharges that would result in lowering quality of care patients receive and benefit only the attorneys involved in the legal morass thereby created.

Finally, I predict significant success for the two insurance companies in which ISMA is directly participating. While the life insurance company (IPIC) stock sale to our members was suboptimal, policy sales have been increasing regularly. The formation of American Physicians Life Insurance Company (APL) with our company being absorbed as part of a larger operation with Ohio, Kentucky and Michigan (rather than our company being simply a subsidiary of the Ohio company) is an opportunity that belies the dour predictions of a few "crepehangers" among us. Potential for expansion of this company into three other states is very real, and long-range projections would include between 10 and 20 states ultimately being involved.

The medical liability company, Physicians Insurance Company of Indiana (PICI), is increasing policy sales monthly and its prospects are also increasing as policyholders learn about the company through its lower premium rates, physician-controlled claims and underwriting committees and its outstanding loss prevention program that has already been developed. There are now at least 32 captive medical liability companies in the U.S., all are reportedly doing well, and this is one of the two ways in which your state association can help you prepare for and face the next medical liability crisis. The other effort that ISMA must make, and with which each of you must assist individually, is the legislative push to resist changes in our medical liability act that are certain to be proposed by outside forces within the year.

Thank you all for the enriching experience of being ISMA president. I eagerly anticipate using the background developed this year to serve ISMA on a continuing basis within the organization, at the AMA level, or wherever the opportunity may arise.

John A. Knote, M.D.
President

Address of the President-elect

George T. Lukemeyer, M.D.

ACTION:

1. Referred to the Future Planning Committee for recommendations to the Board of Trustees for possible implementation:

a. Decreased participation in ISMA.

b. Space requirements for ISMA headquarters.

2. Remainder of address filed.

Welcome to the 134th Annual Convention of the Indiana State Medical Association. It is an honor and a privilege to serve as president of the Indiana State Medical Association. Thank you for granting me that honor. I will strive diligently to serve you well.

This has been an interesting, instructional and provocative year. Please join me in recognizing and complimenting everyone who worked so hard and contributed so much to another successful year for ISMA. Special thanks go to Drs. Knote, Siebenmorgen, Herb and Shirley Khalouf, Allen, White and Rawls. Members of the Board of Trustees, the Executive Committee and the AMA delegation also deserve our compliments. It is a pleasure to acknowledge the superb performance of the commissions and committees. All of this is made possible through the efforts of a loyal and dedicated staff. I wish to express my gratitude for the outstanding performance of Don, Ken, Howard, Sarah, Rick, Mike, Ron, Bob, Rosanna, Beckett and the entire staff.

My quest for the presidency of the Indiana State Medical Association began in earnest in 1981. As a candidate, it was delightful to attend many district medical society meetings. As president-elect, it has been my good fortune to attend even more district meetings. I have been active as a participant in Association affairs as a member of the Board of Trustees and the Executive Committee. In addition, I have taken the opportunity to attend a number of advisory committee meetings and have observed first-hand the workings of several ISMA commissions. Through this, I have developed a keener appreciation for the range and variety of activities involving the Indiana State Medical Association. This experience has sharpened my focus and I would like to



Dr. Lukemeyer

share with you some personal observations, impressions and comments.

I have a growing concern over what I perceive as a deficiency in "grass roots" involvement and participation in ISMA governance and activities. In the last two years, I have traveled to district meetings in all sections of the state. Without exception, my wife and I have appreciated the gracious hospitality and the warm friendship shown us in our visits to the numerous district medical society meetings. Usually, the attendance at the district meetings has been disappointing to me. There has been limited local participation and almost without exception, there has been a consistently large representation from ISMA officers, candidates and staff. This seeming apathy locally has been discouraging and has raised questions about the desirability and viability of the current district medical society concept and meeting.

While total ISMA membership has increased, attendance by members at the annual meeting has shown a declining trend since 1976. In 1976, 570 members (11.6% of total ISMA membership) attended the annual meeting. Last year, only 492 members (representing 8.5% of the membership) opted to attend. I am anxiously awaiting the membership attendance reports for this year's session. Why has the annual meeting failed to attract our members? I suggest that we initiate a review of this matter by the appropriate commissions and committees.

This House of Delegates recognized that there will be increasing numbers of young physicians over the next decade and a half. The student component medical society was created in 1981 and the resident component society authorized in 1982. I urge you to encourage and enthusiastically support the recruitment and full participation in ISMA activities by these new young colleagues.

In recent years, the AMA House of Delegates has expanded to include direct representation by specialty medical societies and most recently, established a section on hospital medical staffs with an elected delegate and alternate delegate. The Indiana State Medical Association House of Delegates includes approximately 203 voting members. There is proportional representation from the component societies. This is based on the number of member physicians in the various county component societies.

The American Medical Association House of Delegates meets twice a year and the Indiana State Medical Association House meets annually. Delegates to this House are called upon to develop and establish policies which will provide direction to ISMA officers and trustees. I am troubled about the erratic attendance of some delegates at the annual meetings. Last year, 28 counties lacked representation in both sessions of the House and an additional 13 counties were without representation at one session. Even though these 41 counties only account for 9.5% of Indiana State Medical Association membership, I am worried about this lack of interest and participation. I ask you, should the size and composition of this House be reviewed? Is an annual meeting of the ISMA House of Delegates sufficient in this complex and changing society? We should monitor the attendance and the effectiveness of this and subsequent meetings of the House.

The Board of Trustees and the Executive Committee assume executive and fiscal-type administrative responsibilities for ISMA throughout the year. Because of my growing concern about the district societies' viability and the effectiveness of House of Delegates grass roots par-

ticipation, I feel compelled to raise the question as to whether or not there should be a careful review of the Board's structure and function.

The commissions and committees are generally hard-working and many are surprisingly effective. Commission and committee members are uneven in attendance, participation and effectiveness. I have some reservations about the appointment procedure and the structure of commissions. Do you feel that commission composition is ideal? The commissions and committees are important in policy development and implementation and must therefore have a full complement of productive members. I recommend a careful self-analysis of commission and committee structure and function.

Many important issues and activities were addressed by the Board of Trustees, your ISMA officers and the staff during the last 12 months. From these, I have selected a few, of major interest, for review and comment.

VIP Program—Dr. Knote, officers, trustees and staff have dedicated long hours seeking an acceptable solution to this vexing problem. It has stirred strong emotions in many and, despite our best efforts, a clear course of action remains unresolved. This House has been asked to determine the Association's next move. Please inform yourselves of the facts and participate fully in the discussions and deliberations in seeking a reasoned response to the VIP Program. This issue has been assigned to Reference Committee #4. Later in this presentation, I will state my personal recommendations to you.

JCAH - Medical Staff Standards—Last year, the JCAH Proposed Organized Staff Standards were before you. These were clearly unacceptable and as a consequence of the dissatisfaction expressed by physicians throughout the nation we have, for field review, the 4th revision of the "Proposed Medical Staff Standards." The AMA House of Delegates will consider the new Proposed Medical Staff Standards at the interim meeting in December. Once again, be knowledgeable about this latest revision. Near the end of this report, I will provide you with my suggestions.

Manpower - TEFRA - DRGs Cost Containment - Competition - Alternate Delivery Systems—On Saturday, Oct. 1, 1983, the future arrived. This marked the beginning of a revolutionary new way of paying hospitals for inpatient medical care services provided Medicare recipients. The theme of this annual meeting is "Medical Care in a Changing Society." I urge all of you to attend the special session tomorrow and to become even better informed about the "changing concepts in medical practice." DRGs and TEFRA legislation have mandated PROs. Reference Committee #3 will consider the resolution regarding a proposed ISMA statewide PRO.

FTC—The tensions surrounding the FTC and its relationship to the medical profession seem to be ameliorating. Progress toward an acceptable compromise continues.

Medical Licensing Board - Rules and Regulations—The first draft of the proposed rules and regulations of the Medical Licensing Board were not accepted by Governor Orr. The Indiana State Medical Association and the Marion County Medical Society were instrumental in obtaining a rewrite which will hopefully correct the major controversial and unacceptable features of the original draft.

It will not surprise you when I remind you that all of the previously mentioned issues have not been resolved and many will continue to challenge us during the coming years. Now, I would like to submit to you an agenda with a partial listing of issues and recommendations for your considerate attention.

- **Past Presidents - Grass Roots Input and Representation**

I recommend that we take advantage of the experience, wisdom and expertise of our past presidents. I propose that the Future Planning Committee membership be expanded by the addition of three to five past presidents. The committee should be charged to conduct a careful analysis of the structure and functions of the ISMA. It should develop recommendations for submission to the House of Delegates and the Board of Trustees regarding the structure and function of the House of Delegates, Board of Trustees, Executive Committee and the commissions and committees.

The Future Planning Committee should review carefully the space and facilities needs for ISMA headquarters. It should make both short (five year) and long-term recommendations to the Board of Trustees regarding size, location and type of ownership for the ISMA headquarters and its staff. The Board of Trustees must accept responsibility for keeping the general membership and the House of Delegates informed and involved in the deliberations and discussions regarding the potential move of ISMA headquarters.

- **VIP**

Please take the opportunity to gain additional information about the VIP issue. Participate in the Reference Committee deliberations and on the floor of the House. Acquaint yourself with the Nebraska decision regarding assignment of benefits. It is pertinent and, in my view, reflects what might be anticipated here in Indiana.

It is my personal conviction that a suit on assignment of benefits would be ill-advised. The outcome is questionable and in view of the Nebraska decision, seems unlikely that the plaintiff would prevail. ISMA motives would be misunderstood, distorted and broadly reported in the media. The result would be damaging to the profession and ISMA. The insurance industry could negotiate and write new master contracts permitting payment either to the subscriber or the provider at the insurance company's option. In the broad spectrum of challenges facing medicine, VIP is of diminishing importance. Give serious consideration to accepting the Blue Cross-Blue Shield compromise and thus avoid the expense, trauma and frustration of what I fear will be a no-win legal encounter regardless of the outcome.

- **JCAH - Medical Staff Standards**

It is time to heal the wounds that the Medical Staff Standards have caused on the parent organizations of the JCAH. The current revision of the Medical Staff Standards, while not perfect, is far better than the "Organized Staff" standards presented to you one year ago. In the new revision, physicians are recognized as the individuals responsible for setting standards of care and supervising medical care in acute-care hospitals. I urge you to lend your support to the current proposed standards and that the Indiana delegates support this version at the AMA House of Delegates interim meeting in Los

Angeles.

• **Young Physicians - Residents - Students**

We must intensify efforts to recruit and retain young physicians. The resident component medical society, now being formed, may need some help with start-up funds.

I will ask the Commission on Convention Arrangements to encourage greater participation of young physicians at the annual meetings. Consideration should be given to invited papers from students and residents with a small prize granted for recognition of the best or outstanding paper. These presentations might be incorporated into the present meeting format or we could consider a special reserved portion of the program for these presentations. Careful thought should be given to sponsoring a poster session for young physicians and other colleagues. I am going to suggest that a meeting be inaugurated at the next annual session with a box luncheon and an open discussion period between students, residents and ISMA officers and officials.

I will ask the trustees to encourage participation of the students and residents in district medical society meetings.

• **Women and Minorities**

I believe the Future Planning Committee should be asked to address the problem of what seems to be a lack of women and minorities in leadership roles at all levels of the ISMA. Are there barriers? Either the Future Planning Committee or a special ad hoc committee could be charged to make recommendations on how to enhance the numbers and active involvement of women and minorities in the ISMA.

• **Annual Dues**

The Executive Committee has proposed a very tight budget for the current fiscal year. Expenses are projected to slightly exceed revenues. Last year's special dues increase has had those funds segregated in a special account. There has not been a "regular" dues increase in several years. Membership services and ISMA activities have expanded and simultaneously inflation has eroded the value of the dues dollar. This House must be careful not to mandate new or expanded programs or membership services unless funding sources are identified. I anticipate the Executive Committee will be making recommendations about the dues structure for 1984.

The theme for this annual meeting is especially timely and appropriate. Great attention has been and will be focused on the economic and financial aspects of (health) medical care. Not only is society changing but we must recognize that the profession is also changing. There are increasing numbers of physicians. Young physician and female physician percentages are escalating at a rapid pace. An increasing proportion of physicians are now employed either full-time or part-time by a variety of entities. I am troubled about the increasing duality of responsibility of the employed physician. She or he is accountable and responsible to both the employer and the patient. In these changing times emphasizing cost containment, an increasing number of physicians will be faced with the dilemma of deciding where there loyalities lie. If the employing entities viability is dependent upon decreased utilization, will potential underutilization be an increasing threat to patients? The physician, anxious about the economic viability of his employer and therefore himself, will be hard-pressed to simultaneously be primarily concerned about the medical care service needs of patients. These are not hypothetical questions and I do not think you should be too smug about how you anticipate physicians will respond to this dilemma in the future.

Right or wrong, organized medicine and the AMA in particular, has been portrayed and viewed by many as reactionary and self-serving. Quality care and the physician's obligation to patients has never been of greater importance than at the present time. The challenge is clear. Physicians must strive for superb medical care. We must be informed and good citizens. We have an unparalleled opportunity in these difficult times to earn the respect of patients as their advocate to ensure quality and accessible medical care. We must be active in our communities and at all levels and demonstrate that we are informed, responsible and non self-serving activists in the formulation of public policies as they affect the health and welfare of our citizens. We can and must seize this opportunity and firmly establish ourselves as the patient's advocate whose interest is in his health and welfare.

Address of the Speaker of the House

Lawrence E. Allen, M.D.

Upon completion of the business of the House at this session, I will conclude my fourth and final year as your speaker. As I review the last seven years since I first began my love affair with this House of Delegates as your vice-speaker, I can tell you with no small amount of emotion that the grandeur of serving you these past seven years is enshrined in my memory because of the many people who have blessed my life and have encouraged me along the way.

My sole purpose has been to raise the quality of work transacted by this House to a level of respect that deserves trust of our full membership. Herein, the performance observed in our Reference Committees has contributed immeasurably to the effectiveness of our House of Delegates and the overall welfare of our State Association.

Since the creation of the office of speaker in 1974, it has been the official duty of the speaker to advise the House and Board of Trustees on procedural matters and to exercise an overview and follow-up of actions of the House. Such overview includes close perusal of the collective activities of the Board and our various committees and commissions as they deal with the entrusted actions of this House, namely the resolutions that you approve and refer for implementation. In accomplishing this I have seen the advantage of the ex-officio participation by the speaker and vice-speaker in the Executive Committee, Board of Trustees, and AMA delegation.

During my visitations to our district medical societies, I have observed many fine examples of leadership—be it Crown Point, Angola, Rising Sun, Mt. Vernon—I have observed concerned doctors and staff who have dedicated their service to the general welfare of our system of medicine in the state of Indiana. Paramount in my memory will be the superb talents and enthusiastic dedication we have received from the untiring efforts of our ISMA staff. Certainly, my association with Don Foy and Ken Bush, as well as the entire staff, makes me proud that I am a physician and working in this State Association. Truly, however, the greatest honor I have known is the opportunity of standing before you, the members of this House, as your chairman.

Please know I am eternally grateful and will miss the experience of being speaker—immensely. May I thank you all sincerely for your entrusted support and congratulate you for your creation of this significant office. God bless you.

Address of ISMA Auxiliary President

Hulda Classen

I take this opportunity to thank you for the use of your Board room in the ISMA building for our quarterly meetings and the special assistance from the ISMA staff, especially Rosanna Iler. Without her help we would not function nearly so well.

We have just come from the Leadership Confluence in Chicago, filled with new ideas and enthusiasm. Nine of our county presidents-elect attended, with our state membership chairman, president-elect and president. We are pleased that so many chose to attend, to develop and enhance their leadership capabilities.

For the auxiliary year 1983-84 our theme is "Building for the Future." Our major thrust will be on the following four facets of our structure of voluntarism:

1. AMA-ERF
2. Health Projects
3. Legislation
4. Membership

The first one is AMA-ERF. Lura Stone and Sue Greenlee are the construction superintendents. They have set for us a goal to raise $45,000 for this year. Each county is working with some fund-raising project such as Christmas cards, auctions, special dinners, etc.

Our construction superintendent for our health projects is Donna Serna. Our statewide project is health education in co-operation with the American Cancer Society. We hope to reach all the kindergarten through grade 3 in our schools with the program, "An Early Start to Good Health." Allen County used this material for a pilot program in seven schools last year. They are expanding it to include additional schools as rapidly as volunteers are trained. Lake County is beginning in the parochial schools—will add public school, later.

From National we are encouraged to work in our communities for the prevention of child abuse. Many of our auxiliaries are already working in this area in coalition with other volunteer organizations. In co-operating with other community organizations instead of duplicating efforts we save scarce resources of time and money.

Another program is infant safety seats in autos. Wabash County Auxiliary was perhaps the trailblazer in our state for the "Keep Infants Safely Seated" program. This program is active now in almost every county.

Legislation is an ever increasingly important area for us to monitor, to remain in touch with representatives, to keep abreast of the issues concerning medicine and health care. Anne Pantzer is our state legislation chairman. She, together with Vivian Priddy, our AMPAC representative, and Dorothy Bickers, our IMPAC representative, comprise our legislative team.

Membership is the foundation of all our activities—without members we have no organization. Muriel Osborne, our state membership chairman, presented us with a challenge at our area workshops in September. "It's 500 time for the auxilians of Indiana. Our membership goal this year is to increase our auxiliary membership by 500 full dues paying members! Remember the 3 R's of Membership:

RECRUIT (new members)
RETAIN (present members)
REINSTATE (former members)

Together we can increase our auxiliary membership from 2,436 to 2,936 full dues paying members by April 1984. The green flag is out and the membership race is on! See you in the Winner's Circle!"

Again, we wish to thank you for your support, for the assistance of the ISMA staff, Don Foy, Ken Bush, and Rosanna Iler. We are truly grateful!

Address of the Student Council President Indiana University School of Medicine

Todd Taylor

ACTION: Filed.

Busy as we are, medical students continue to be interested and involved in activities other than classes and clinical clerkships. One of the greatest areas of increased interest over this past year has been in the Indiana State Medical Association. Due to the generosity of the ISMA, all IU medical students automatically become ISMA members at no charge while they are in school. This has resulted in not only an increased awareness of the ISMA, but also increased involvement.

Active student involvement has doubled this year with the opening of several student positions on the ISMA commissions and ad hoc committees. Currently about a dozen students are serving in the areas of Public Relations, Medical Education, Legislation, Medical Services, the Editorial Board, and as Delegates. We are especially excited about the opportunity to have our own page in the ISMA Journal. We hope to keep all Indiana physicians informed of our student perspective on medical education as well as allowing us an opportunity to express our thoughts about medicine as a whole.

We certainly hope that we can continue to increase our involvement with the ISMA over this next year as more student positions become available. We also trust that our support in these areas will serve to advance the purpose and goals of the ISMA as well as giving our students experience in organized medicine. Thank you for your continued support and confidence in the Indiana University Medical School Student Body.

1983 Physician Community Service Award

Arthur F. Hoffman, M.D.
Fort Wayne Anesthesiologist

Dr. Arthur F. Hoffman, a specialist in anesthesiology in Fort Wayne, received the Indiana State Medical Association 1983 Physician Community Service Award, for his contributions to his community, at the ISMA annual convention in Evansville, Friday, Oct. 14.

Dr. Hoffman, who graduated cum laude from Notre Dame in 1937 and received his medical degree from Jefferson Medical College in 1941, received the award from Dr. John A. Knote, ISMA president.

Sponsored each year by A. H. Robbins Pharmaceutical Company, Richmond, Va., the award recognizes outstanding service to one's community in the public interest. Dr. Hoffman, who has given at least 500 hours each year during the last 25 years to scouting, has also received the St. George Award from the Catholic Committee for Scouting, the Silver Beaver (the Council's highest award) and the Silver Antelope (the Region's highest award). Notre Dame also recognized Dr. Hoffman's service with the Notre Dame Man of the Year Award in 1969.

Dr. Hoffman has served as a district chairman, council health and safety chairman, council vice president in charge of finance and council president. One of his greatest contributions to scouting has been his effort to obtain funding through physician colleagues. Dr. Hoffman has served on the Council Executive Board for 15 years, a position he still holds. He currently is serving on the Council Future Planning Committee and Finance Committee. For the past eight years he also has served on the Regional and National Scout Committees.



In addition to many scouting positions, Dr. Hoffman has served on the board of directors for the Home for the Aged in Ligonier and he continues to be active in the alumni associations of Jefferson Medical College and Notre Dame.

A diplomate of the American Board of Anesthesiology, Dr. Hoffman is an active staff member of St. Joseph's Hospital where he serves as chairman of the anesthetic committee, and also is a member of the courtesy staff of Lutheran and Parkview Hospitals.

Dr. Hoffman served four years as a trustee of the Allen County Medical Society and several terms on the board of directors of the Allen County Medical Society Foundation and the Society's Education Committee. In addition to scouting, he has served five years on Club Olympia's board and three years as a trustee of Wawsee Prep School.

He and his wife Mary have six sons, three daughters, and ten grandchildren. Their six sons attained the rank of Eagle Scout. Four of their children have made medicine their avocation—a physician, a dentist, and two physical therapists.

ACTION:

1. This report referred to the Board of Trustees to resurrect the Negotiations Committee to be fully staffed and to meet on a timely basis in order to prepare for future needs.

2. Referred to the ISMA Board of Trustees and the ISMA Commission on Legislation for further definition and evaluation of the matter pertaining to freestanding emergency centers, with the possibility of introducing legislation into the Indiana General Assembly.

3. Remainder of report filed.

It is gratifying to note that despite the special $25 dues increase adopted by the House of Delegates last October, ISMA membership continues to increase at the same rate it has increased for the past six years. This is somewhat surprising since most organizations tend to suffer a temporary drop in membership following a dues increase. One might also conclude that this constitutes strong support for the intended purposes of the dues increase.

A recent study by the National Center for Health Services Research (NCHSR) reveals that house calls to homebound chronically and terminally ill patients provides effective, less costly care. With the spectre of an oversupply of physicians on the horizon, the recession and the competition for patients increasing, it would appear that promoting house calls as an alternative might appeal to those physicians who need to compete more aggressively for patients as well as to those who are interested in cost containment.

Actually, more house calls are being made as a result of increasing competition aggravated by the expanding supply of physicians. Although house calls are not a widespread trend and probably never will be because they are not cost-efficient, they have potential public relations value.

In light of the problem regarding Medicare assignment and how we are perceived by many of those over age 65, I firmly believe that we need to forge a relationship with the senior citizen groups. We know from our Washington visits and contacts that the politicians listen and respond to the senior citizens, especially since there are some 30 million of them, over 65, drawing Medicare benefits, 85% of whom vote regularly and who are now much better organized than they ever were. We are in the process of identifying their organizations here in Indiana and will proceed to meet with their leadership. I believe we have a real communication gap with the aged, but I also believe the potential good that we might accomplish for all concerned is tremendous.

There is little doubt in my mind that over the next few years third party carriers will abandon reimbursement based on usual and customary charges and move toward standardized indemnity fee schedules. Application of the DRG concept to physicians will see to that! These schedules could be developed unilaterally and foisted upon us (like the VIP program) unless we are prepared to negotiate them with the carriers. Therefore, I believe it is imperative that we resurrect our Negotiations Committee and charge it with the responsibility for thinking about this problem. The legal aspects of the matter will have to be investigated and the various specialty societies will need to be brought into the picture since it will require a united effort to preserve our freedom.

As their number grows, doctors find themselves competing not only with other doctors and with hospitals, but also with an increasing number of non-physician professionals such as nurse-practitioners, nurse-midwives, and physician's assistants as well as podiatrists, chiropractors, physical therapists, and optometrists. A recent nationwide survey conducted by *Medical Economics* magazine showed that more than one-third of the respondents had sought care from a non-M.D. provider and some respondents had "actually defected from M.D. care altogether." The growing competition has been underlined by debate involving staff privilege provisions in the proposed Conditions of Participation for Medicare and Medicaid, and possible changes in the medical staff standards set by the Joint Commission on the Accreditation of Hospitals (JCAH). The battlefield includes regulatory boards, state legislatures, and state courts. The Federal Trade Commission has taken antitrust action in some instances. Important aspects of the conflict involve hospital admitting privileges, third party reimbursement, federal loan programs, malpractice insurance, and scope of practice rulings.

Under the U.S. regulatory system, all medicines are regulated by the Food and Drug Administration (FDA), and the agency is the sole judge of which medicines qualify for prescription (Rx) and which for over-the-counter (OTC) marketing. FDA may determine that a medicine previously approved for prescription use only has been demonstrated by science and experience to be sufficiently safe for direct sale to consumers. In such cases, the medicine may be "switched" by FDA from Rx to OTC status. Historically, comparatively few medicines have made the transfer. According to proponents of the "switch," recent trends show the switch process to be an increasing source of even safer and more effective over-the-counter medicines.

On Nov. 1, 1982, in Washington, D.C., The Proprietary Association sponsored a symposium on the potential, the promise, and the process of "switch." The association, which represents the manufacturers of OTC medicines, sponsored the day-long discussion of switch because, it believes, "The switch process is based in sound law, supported by good science and impelled by vital considerations of costs and benefits. We believe the switch process offers real and substantial health improvements for the American public.

"The FDA is more willing today than at any time before to recognize that even though a particular condition may have to be diagnosed by a physician, once such a diagnosis has been made, it is no longer essential that drugs used for the alleviation or treatment of that condition be limited to a prescription status."

This movement toward responsible self-medication should be of concern to organized medicine and carefully monitored. Its implications are obvious. Responsible self-medication is the informed and appropriate use of non-prescription medicines for the relief of symptoms and for the treatment of illness and injury without the supervision of a health professional. According to its proponents, however, responsible self-medication does not include the use of prescription medications obtained without professional authorization as well as such medications left over from an earlier illness or prescribed for another person.

As many physicians know, "store-front" medical centers are thriving—they

are springing up everywhere, but particularly in shopping malls. Initially, they were aimed at handling emergencies and supplementing hospital emergency rooms, but you can look for them to move more and more into providing routine health care. Some predict that they will provide 25% of primary care by the 1990s.

As a matter of fact, this group now has its own national organization known as The National Association of Free Standing Emergency Centers, which recently filed a complaint (with the FTC) against the AMA charging that AMA's voluntary "Guidelines and Standards for Emergicenters" interferes with the growth and development of free-standing emergency centers. What is particularly baffling about this complaint is that the AMA has indicated that its guidelines do not apply to convenience or access clinics that are the equivalent of physicians' offices.

There is some business and investment significance in all of these developments and that is a slower growth of hospitals as a larger proportion of health care is provided outside the hospital. This, of course, has positive implications for the rental of medical equipment and devices and the employment of nurses and allied health personnel outside the hospital.

The results of three separate polls related to regulation and the jurisdiction of the Federal Trade Commission (FTC) over medicine contain some interesting messages for the profession. The polls were conducted in November 1982 and March 1983, and were designed to assess the changes in public opinion during the period of heavy media coverage of the recent controversy between the AMA and the FTC.

The public image of the AMA improved by 2% between 1981 and 1983, with 72% of the public indicating a great deal or fair amount of confidence in the AMA's ability to propose fair and workable health policies. All other groups mentioned in the surveys, including the federal government, congressional committees, and labor unions, showed declines in public confidence. The polls also showed strong public support for a continuation of activities of local medical organizations that have been called into question by recent FTC rulings. These include reviewing complaints of high fees, setting standards of quality and education, and developing broad programs to help control costs. As a result there is some evidence that the FTC's attitude regarding fee review conducted by medical societies may be changing as well.

The polls clearly indicate a growth in support for a local rather than national approach to health planning and regulation. The public shows strong support for self-regulation of physicians rather than federal or state controls, but unless presented with a clear alternative, the public does not support a decrease in federal regulation of medicine. As Congress once again addresses the FTC issue, these trends should be kept in mind by physicians in their dealings with patients and the public.

Patients are becoming more and more difficult to please. They expect more than ever from their doctor. When they are not satisfied, they are more willing than ever before to try a new physician.

A number of the findings of the AMA's 1982 attitudinal surveys are encouraging. Satisfaction with last patient visit is high and increasing. The public image of physicians on scientific issues and quality of care is excellent. Due in part to the efforts of the medical profession, the American public is increasingly aware of the relationship between lifestyle habits and health.

As with past attitudinal surveys, the 1982 Survey of Public Opinion found that the public image of physicians as a group, on economics is poor, even though the public's attitudes toward their personal physicians is good. This disparity probably reflects the impact of the media on the attitudes of the public.

Finally, the findings of the AMA's 1982 attitudinal surveys imply that there are three difficult issues facing organized medicine. These issues are:

1. rising health care costs;
2. growing physician manpower; and
3. increasing competition in medicine.

Each of these issues represents a potential dilemma for organized medicine. There are no easy answers to any of these problems. Organized medicine must intensify its efforts to find innovative, widely acceptable, and effective responses to these issues.

Donald F. Foy
Executive Director

Report of Chairman, Board of Trustees

SUPPLEMENTAL REPORT

ACTION: Filed.

The Board met on August 28, 1983 which followed the date of publication of the annual report to the House as published in the September issue of THE JOURNAL.

These are the actions by the Board at its final meeting, which pertain directly to issues, some of which should be considered independently by the House as Board actions, and others in conjunction with related resolutions and reports before the House.

Resolutions 81-7 and 81-22/Progress Report of 82-12: Resolutions 81-7 and 81-22, dealing with restructuring of districts, were referred to staff for study and subsequent recommendations back to the Board. The Board reviewed a current proposal for district restructuring. The Board was reminded that ISMA Bylaws, Section 3.0209, authorizes a change in district society structure if so requested by a county society, and has proved effective. The Board adopted a motion that the present geographical distribution of districts not be changed at this time since county societies have the prerogative to submit a request for change.

The Board received a progress report on Resolution 82-12, which requested the formation of a Commission on Health Care Costs, and accepted the report for information.

Dr. Jere Guin appeared before the Executive Committee early in the year to discuss the resolution's intent of informing the public that physicians' fees are a relatively small part of the total health care costs.

As a result of the discussion the Commission on Public Relations developed a pamphlet for the public to be distributed by the physician's office entitled "You already know that health care costs are rising. Now your doctor wants you to know why." Information on the pamphlet should be sent to ISMA members momentarily.

Report of the Ad Hoc Committee to Study the Structure/Function of the Executive Committee (Resolution 81-1): The ad hoc committee met in response to Resolution 81-1 to review the functions of the Executive Committee and make recommendations to the Board. The Board amended portions of the report with adoption of the following for referral to the Commission on Constitution and Bylaws and approval by the House:

ACTION I: That the functions of the Executive Committee be consolidated in a single section of the Bylaws.

ACTION II: That the authority and functions assigned by the Board to the Executive Committee be reviewed annually at the first regular meeting of the Board of Trustees.

ACTION III: Section Changes:

3.0401 - Eliminate reference to general meetings being arranged by the Executive Committee.

4.0301 - Eliminate the language referring to the Executive Committee arranging for the time of the annual address of the President.

4.0305 - Add to the language that the Executive Committee shall fix the amount of the Executive Director's salary "*at least annually.*"

6.01 - With reference to the Executive Committee planning and executing such work as may be necessary for the welfare of the Association, add "*between meetings of the Board of Trustees.*"

6.01 - Eliminate reference to the Executive Committee having "*all jurisdiction with respect to medical defense activities of the Association.*"

6.01 - ". . . and shall organize by electing its Chairman *from its voting members.*"

6.01 - Eliminate from this section, reference to the Executive Committee *making decisions for the Association in deciding matters pertaining to the Journal, during the intervals between the meetings of the Board and shall report its actions to the Board.*

6.04 - Add to the authority to make student loans the language "*with the approval of the Board.*"

7.0803 - Change the wording which refers to certification of the Indiana Medical Education Fund Committee by the Executive Committee to certification by the Board of Trustees.

7.0807 - Eliminate reference to Executive Committee approving arrangements and the character of any and all technical exhibits for the convention and approving the general scientific and section programs.

Voluntary Incentive Program (VIP): In response to ISMAs negotiation efforts, the Blue Shield Board of Directors proposed an alternative method of reimbursing non-participating physicians.

The Board took the following actions:

1. Voted (11-4) not to sponsor a suit against VIP at this time;

2. Instructed that the proposal be disseminated to the entire ISMA membership as soon as possible and that it also be presented in resolution form to the 1983 House of Delegates, and

3. Requested the speaker of the House of Delegates to reserve a special time for the reference committee to hear discussion on the VIP issue so as to enable all interested ISMA members to participate.

Report from the Indiana Delegation to the AMA: Floor Leader, Dr. Petrich, highlighted for the Board the important issues discussed during the June 1983 AMA meeting held in Chicago, and these are included in the Report of the Delegation to the House.

Treasurer's Report: The Board accepted the prospect of a deficit budget for fiscal year 1983-84 based on certain assumptions and Board actions.

Commission on Public Relations: The Commission on Public Relations requested an additional $1,000 to assist further in the Drunk Driving Campaign and the Board approved their request.

Ad Hoc Commission on Sports Medicine Recommendations: An extremely active Commission on Sports Medicine made recommendations to the Board concerning high school basketball games, heat exhaustion and head and neck injuries incurred in athletic contests. All recommendations were endorsed by the Board. The Board further endorsed the resolutions being presented to the House of Delegates outlining the Commission's request for permanent status.

PRO in Indiana: Dr. Knote discussed a resolution he is introducing to the House which encompasses the interest of ISMA in serving as a statewide organization for coordinating the PRO program in Indiana. The Board requested that a resolution be presented to the 1983 House supporting the concept.

Paul Siebenmorgen, M.D.
Chairman

Report of Chairman, Board of Trustees

REPORT prepared prior to Annual Convention

ACTION: Filed.

The Board of Trustees had an extremely busy year in dealing with the affairs, programs and projects of the Association. As chairman, I must first express my greatest respect for the dedication and devotion to the business of this Association so freely given by the trustees, alternate trustees and officers. I would hope that all members would join me in thanking them for their sincere, thoughtful and painstaking deliberations.

Some of the major issues this year included the following:

The Board instructed special counsel to file suit by July 1, 1983, against Blue Shield if, by that date, there had not been a favorable response from the Blue Shield Board regarding the acceptance of dual signatures (patient-physician) on reimbursement checks sent to patients of non-participating physicians as previously discussed with the Blues' legal counsel. After what appears to be progress, the Board postponed the filing date to July 20, following another meeting of the Blue Shield Board.

The Board voted to allow grandchild(ren), under the age of 24, to be covered under the member's health insurance policy if the member is made legally responsible for said grandchild(ren) by the court.

The ISMA-sponsored "Heartbeat" television series for statewide broadcast on PBS was approved by the Board. The Board also authorized an expenditure of $2,500, if the other $10,500 was committed by outside sources, to edit the existing series of 13 Heartbeat programs that were aired on WANE-TV in Fort Wayne and to produce four public service announcements.

P.R. Duke's proposal to purchase all ISMA properties in return for a commitment to lease office space from them was rejected. The Future Planning Committee was requested to continue to study the future space needs of the headquarters and make recommendations.

The Board apprised the Health Care Financing Administration of ISMA's interest in coordinating the PRO program in Indiana, depending on the structure of the program.

In conjunction with the Marion County Medical Society, the Board submitted comments along with those received from ISMA members on the Medical Licensing Board's proposed rules regarding professional conduct.

A letter of composite comments expressing ISMA's dissatisfaction with the proposed revisions to the JCAH Manual was sent to the AMA president and other JCAH board members. Personal contact with other state medical associations was also made to let them know the ISMA position. Additionally, the AMA delegation responded with an appropriate resolution disapproving JCAH action.

It was noted that member claims exceed the income for the health insurance program. The Board requested a comparison of the two existing insurance plans according to utilization and that the policyholders be advised of the claims overutilization.

Prior to the December and June meetings of the AMA, the Board reviewed, in conjunction with the AMA delegation, over 300 resolutions and reports submitted to the AMA House.

Legislative matters consumed much of the Board's time. Members were kept abreast of issues at the state and national levels by ISMA staff and the legislative commission chairman and its members.

Focus Group Interviews, a new approach to gaining member attitudes toward ISMA, was approved by the Board. Directed toward open and frank discussions with six to seven members and non-members invited to attend from an area, the first interview proved unusally informative and was appreciated by all.

With rising costs of hotel accommodations and travel, the Board increased the stipend for each AMA delegate and alternate delegate to $1,500 per meeting.

Don Blinzinger, administrator, Indiana Department of Public Welfare, met with the Board and conveyed his concerns, in an extremely informative report, dealing with the ever-increasing Medicaid budget. Of the $966 million expended to run the state's welfare system, $489 million was devoted to the Medicaid program in Indiana.

The Indiana State Board of Health was notified of ISMA's concern about appropriate and timely notices for filing testimonial applications at evidentiary hearings.

The Board approved ISMA representation and participation in the Indiana Advisory Council on Health Care Economics. This is an extension of the Voluntary Effort Committee, and is now seeking the role as an advisory group to the Governor on the economics of health care.

The Board endorsed the concept of the for-profit formation of Physicians Services Development Corporation and appropriated $25,000 in the F.Y. 83-84 ISMA budget for this purpose. The for-profit corporation will identify and develop new business opportunities, especially in the insurance area, for its shareholders.

The Board endorsed the resolution received from Grant County Medical Society commending Eugene Rifner, M.D., ISMA president, 1967, for his years of service to organized medicine.

Michael DuBois, M.D., and Stephen Goldsmith, Marion County prosecutor, addressed the Board to request financial assistance for a PR campaign to increase public awareness of the dangers of drinking and driving, and the change in law that is effective Sept. 1 regarding driving while intoxicated. The Board approved the request for funds up to $7,500 for a "Responsible Drinking" campaign.

With the conclusion of this year I will have served five years as trustee of the 5th District; the last two, as chairman of the Board of Trustees. In the latter position, it has not only been my duty and privilege to preside over the Board meetings, but to be a member of the Executive Committee, ex-officio member of the various committees and commissions and a part of the ISMA delegation, which attended the December and June meetings of the AMA. Through the mounds of paperwork and endless items of business focused within the framework of these countless meetings, I humbly submit that I have done my best to properly represent physicians of this state and their concerns for the continuing quality of medical care and health for their patients.

It has also been through this complex process that one really learns, more than ever, to respect and admire the quality of our ISMA leaders, representatives and the entire devoted staff. Indiana medicine is indeed most fortunate.

Report of Chairman, Board of Trustees

For the record, my additional activities this year included my continued participation as officer and executive committee member of the Statewide Health Coordinating Council (HSCC), member of the Board of the Physicians Insurance Company of Indiana (PICI), chairman of the Ad Hoc Committee on Health Resources of the Indiana State Board of Health, member of the advisory committee in the search for a new dean of Indiana University School of Medicine, and concluded my eighth year as a member of the Board of Trustees of Indiana State University, on whose campuses are two of our Indiana Centers for Medical Education. I have also helped to establish the business-medicine coalition in Terre Haute this year, and as of this date, I have attended all ISMA district meetings.

Your Board of Trustees, elected by their districts, and your officers of this Association, elected by the House of Delegates, are physicians from a wide range of disciplines and specialties; from a wide range of urban to rural communities; from large groups to sole practitioners; and from the ivory towers of academia to the offices of a private practice. It is through the framework of this forum, through its frank discussions with the intent of give and take, that decisions are made and solutions to these items of business are reached.

It is obvious that all Board decisions are not unanimous and that all members of this House nor the membership will agree with all actions taken by the Board. But the Board has done its best in light of the information and expertise available at the time. Each trustee and officer covets your constructive suggestions, information and ideas and asks that you freely present them at every opportunity. The trustees and officers serve as your representatives.

Paul Siebenmorgen, M.D.
Chairman

Report of Chairman, Executive Committee

ACTION: Filed.

The Executive Committee, as usual, considered a variety of matters during the year and met routinely once a month.

In this report I will submit only the issues which could be considered fairly major in importance. Among them were the following:

1. A considerable amount of time and study was given to a proposal by the P.R. Duke Company of Indianapolis to purchase all of the properties currently owned by the ISMA in return for a leasing arrangement in the company's property at Keystone at the Crossing. The proposal was ultimately rejected by the Board of Trustees. The Future Planning Committee is currently projecting the long-range needs of the Association in the area of space needs.

2. Proposed regulations by the Medical Licensing Board dealing with Standards of Professional Conduct and the Competent Practice of Medicine were scrutinized on a continuing basis by the Executive Committee, who heard reports from the ISMA attorneys, and made recommendations for amending or revising specific matters set forth in the proposals.

3. The Committee authorized the allocation of $2,000 to the Ad Hoc Committee to Reduce Drunk Driving for the conduct of its business during 1983. The Committee additionally authorized a representative of the Ad Hoc Committee to attend an International Symposium on Alcohol and Driving in Washington, D.C.

4. The VIP (Voluntary Incentive Program) was paramount in the Committee's deliberations and every avenue of negotiation was pursued to solve the many problems created by the inauguration of this program with the objective of doing everything possible to avoid a law suit on the issue.

5. Policies were established for ISMA members wishing to utilize the corporate airplane.

6. The annual Washington visitation was reviewed and in the interest of budgetary considerations the Committee evaluated the possibility of reducing the number of persons attending and the possibility of utilizing multiple visits of smaller groups throughout the year.

7. Continued surveillance of the Association's investments remains an ongoing task of the Committee, and funds were invested to bring the Association top interest income.

8. The possibility of selling the Harshman Building was referred to the Future Planning Committee for study and recommendation.

9. Staff was directed to develop a resolution to be submitted to the AMA for the Indiana delegation regarding the proposed JCAH revisions to the Accreditation Manual for Hospitals.

10. The Committee evaluated the activities of the ISMA executive director, which is an annual responsibility.

11. The Committee endorsed and recommended the concept of Focus Group Interviews to the Board of Trustees. The interviews are to be implemented and will involve a broad cross section of members and non-members designed to get solid grass roots reactions to ISMA programs and plans.

12. The Board received a recommendation from the Committee authorizing a $25,000 appropriation to the Physicians Services Development Corporation, a for-profit corporation which will identify and effect new business development activities for its physician shareholders in Indiana, Ohio and Kentucky.

13. The Committee additionally authorized $3,000 to hold an educational conference for county society officers and hospital chiefs of staff regarding implementation of the government prospective payment system (DRGs) and the little understood effects of this new program on physicians' practices.

It was an unusually busy year for the Executive Committee, which in its many hours of handling Association business, rejected more proposals than it accepted. Nevertheless, these items, too, demanded additional long hours of the chairman and the Committee members.

This report would be incomplete without a special note of thanks to Don Foy, Ken Bush and each member of the ISMA staff for their continuing efforts on our behalf.

Herbert C. Khalouf, M.D.
Chairman

Report of AMA Delegation

ACTION: Filed.

Miami Beach, Dec. 5-8, 1982

Miami Beach, Florida was the site of the Interim Meeting of the AMA House of Delegates, but little time was available for basking in the sun.

Officers of the ISMA and AMA delegates kept busy during the four day session which did not include any of the so-called major issues, normally political and legislative in nature, but still were faced with a multitude of council reports and resolutions, which have as much impact on physician practice and patient care as the critical legislative issues.

For example, the delegates considered in depth and took action on several reports from the AMA Council on Scientific Affairs, which will probably be referred to the recently organized similar committee of ISMA.

Some of these important issues included the following:

Calcium Blockers

It is appropriate and legal for physicians to prescribe approved drugs for uses not included in their official labeling when such uses can be supported as rational and accepted medical practice, said a report on calcium blocking agents.

The report, prepared by the AMA's Council on Scientific Affairs and approved by the House, discusses the indications for use of the calcium blocking drugs, which can dilate the coronary blood vessels that carry oxygen and nutrients to the heart muscle and can slow the heartbeat rate.

Pointing out that some of these drugs are selectively more effective in one type of tissue than another, the report notes that some experimental results suggest that certain agents may prove effective in limiting the extent of damage to the heart muscle during a heart attack.

Motor Vehicle Injuries

The AMA has called for the establishment of a reduction in motor vehicle injuries as a national goal.

In approving a report by the Council on Scientific Affairs, the AMA House also encouraged physicians to increase their awareness of the problem of vehicle-related injuries and to discuss with their patients how to avoid or prevent such injuries.

According to the report, about half of the U.S. deaths caused by trauma involve motor vehicles. The report goes on to describe new concepts of how automobile injuries occur and makes recommendations for preventing them, including:

- Encouraging motor vehicle manufacturers to develop automobiles with stronger passenger compartments that more effectively would protect occupants and with interiors that have fewer protruding objects and hard surfaces that could cause injuries in crashes.
- Continuing to support state and federal legislative efforts to strengthen drunk driving laws and enforce them.
- Recommending equipping automobile gasoline tanks with an explosion-containing mesh.

Child Abuse

Physicians have a responsibility to comply with laws requiring reporting of suspected cases of abuses of children and elderly people as well as others at risk, the AMA Judicial Council said.

In an opinion endorsed by the House of Delegates during the Interim Meeting, the council noted that such required reportings laws "often create a difficult dilemma for the physician. The parties involved, both the suspected offenders and the victims, will often plead with the physician that the matter be kept confidential and not be disclosed or reported for investigation by public authorities."

Surrogate Motherhood

The AMA House has asked the Judicial Council and the Board of Trustees to investigate the issue of surrogate motherhood.

The House referred back to the Judicial Council for further study of a council report stating that a physician who knowingly participates in an arrangement for the artificial insemination of a woman who agrees to bear a child for adoption is engaged in unethical conduct.

The delegates adopted a reference committee report that called for the board to conduct a study of the matter and to report back at the 1983 Annual Meeting.

Use of Balloon Catheters

Percutaneous transluminal angioplasty (PTA) may be as effective as surgical bypass grafting and may present less risk of mortality or other serious complications when used to relieve obstruction in an artery.

This was among the conclusions of an AMA report on PTA and was adopted by the Association's House. PTA is a procedure that is "acceptable for relieving an isolated stenosis in any of several arterial beds," the report says. In general, the technique is indicated for "localized lesions that are sufficiently serious to cause symptoms of ischemia and to warrant surgical bypass grafts," it adds.

In appropriately selected cases, the report says, the procedure may be as effective as grafting and may have the added advantages of requiring fewer hospital days and of causing less pain.

Use of HBV Vaccine

Health care workers at high risk of hepatitis-B infection should be given the informed option of receiving HBV vaccine, according to suggestions in a report approved by the AMA House.

The report cautions, however, that "until further experience has alleviated concerns about possible late hazards from this vaccine, a more widespread usage is not currently justified."

The report, prepared by the AMA Council on Scientific Affairs, also suggests that patients at high risk of pneumococcal or influenzal infections receive the appropriate vaccinations. In addition, the report suggests that the AMA consider possible solutions to the problems of payment for the hepatitis-B vaccine and influenza vaccination for those segments of the population at increased risk.

In other actions which could be labeled organizational, legislative and political the AMA House acted on the following:

TEFRA

Delegates insisted on a four-part opposition to the new Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA).

Delegates endorsed a resolution calling on the AMA to "oppose vigorously regulations under the act which would interfere with and/or redefine the practice of medicine; substitute hourly wages or annual salaries for present reimbursement mechanisms for physicians' services to patients; base physician reimbursement on any system which does not give recognition to knowledge, skill, time, effort; or otherwise impinge significantly upon the practice of medicine."

"Such opposition, as required and appropriate, shall be expressed through action in Congress, with the Administration, and in the courts," the resolution asserted.

Policy On JCAH

AMA policies toward JCAH guidelines on medical staffs were reiterated by the House.

The delegates gave their approval to a four-part statement designed to provide guidance to AMA commissioners who serve on the JCAH.

The statement's major points are:

- That the objective of hospital accreditation is primarily to evaluate the quality of patient care, to provide recommendations for remedying deficiencies and improving the quality of patient care, and to withhold accreditation from institutions that do not meet an acceptable standard of patient care.
- That the AMA oppose accreditation requirements that impose rigid, uniform, mandatory administrative procedures, methods of operation, nomenclature, or forms of organization for the hospital, its governing board, attending staff, and committees.
- That the AMA recognize that excellence in patient care is attained more easily when the accreditation process is flexible and is concerned with evaluating the quality of hospital service and not the administrative procedures, or form of organizations used to provide patient care.
- That the AMA board, in its discretion, give the AMA commissioners to the JCAH appropriate guidance for implementing these points.

Third Party Payments

The AMA Council on Medical Service has initiated a study to review the various methods for determining third-party payment levels for physician services.

This in-depth analysis of the problems of third-party payment is in response to the increasing number of Blue Shield plans considering allowing assignment of benefits to the physician by the subscriber only if the M.D. is willing to accept the plan's "reasonable charge" as payment in full.

Compounding this problem, according to the report, is an apparent resurgence in some areas of communications from payers to their policyholders with usual and customary (UCR) type coverage offering to defend subscribers in any legal action brought by a physician to recover the amount of his fee not covered under terms of the policy.

CT Scans

The issue of reimbursement for CT scans and other procedures has been referred to the AMA Board of Trustees for further study.

A resolution had asked the AMA to tell third parties that coverage for technical procedures by competent physicians should not be denied solely on the basis of site or physician specialty.

The resolution also said that payment for outpatient performance of such procedures should be at least equal to inpatient payment.

AMA Finances

The financial health of the AMA is unexpectedly robust, Executive Vice President James H. Sammons, M.D., told the House.

"We anticipate that on revenues of almost $93 million, there will be an excess of revenue over expenses of some $11 million" for the 1982 fiscal year that now is coming to a close.

"This substantially exceeds the four to five million dollars that we budget each year to protect overselves against unforeseen reverses or, if all goes well, to contribute to reserves," Dr. Sammons said.

New Peer Review Law

The AMA will expand assistance to physicians and medical societies in assuming a leadership role in medical peer review, said a report adopted by the House.

In a report on the Peer Review Improvement Act of 1982, the Association's Council on Medical Service recommended that the AMA support and work to strengthen those elements of the new program that are consistent with current Association policy and seek modification through regulation and amendment of those mandatory elements that are not consistent with existing policy. If these efforts fail, the AMA should seek repeal of the new law, the delegates said.

Specialty Society Representation

Addressing a number of concerns about the composition of its policy-making body, the AMA reaffirmed the value of specialty society representation in the House of Delegates.

"The reasons for including specialty societies in the house are still being well served by the current process," a Board of Trustees report said.

The board report was developed in response to delegates' concerns that the votes of state medical societies were being diluted; that large and small specialty societies had the same voting strength, despite the difference in their size; and that some specialty disciplines were represented by more than one specialty society.

Section on Hospital Medical Staffs

The AMA House of Delegates will establish a Section on Hospital Medical Staffs to provide a national forum for addressing urgent issues facing medical staff physicians.

The new section is intended to increase two-way communication between the AMA and medical staffs at the nation's 7,000 acute care hospitals and to provide medical staffs with a direct vote in the policy-making House of Delegates.

Medical staff representatives to the section would meet to discuss common problems such as the expansion of hospitals into ambulatory care services, medical staff representation within the hospital organization, competition, costs, contracts, corporate restructuring of hospitals, reimbursement, and closed staffs.

AMPAC Membership

The percentage of AMA delegates who are sustaining members of AMPAC has nearly doubled in two years.

In June, 1981, less than 48% of the members of the House of Delegates of the AMA were sustaining members, and AMPAC had lost more than 20,000 individual members from its national rolls.

Today, more than 95% of the delegates to the House are sustaining members of AMPAC and their state PACs, and the national membership has grown almost 9%.

During the 1981-82 election cycle, AMPAC supported 493 campaigns: 447 in the U.S. House of Representatives and 46 in the Senate. It spent nearly $2.5 million during those two years and had a success rate of 84%, the House was told.

Chicago, June 19-23, 1983

It was an unusual meeting for the AMA delegation when they met in June at the 1983 annual convention of the American Medical Association, because for the first time in a number of years, Indiana was not running anyone for an AMA office. For the delegation it was a "breather" so to speak to give thought to future campaign plans.

President John A. Knote, however, brought Indiana recognition with his election to the Steering Committee of OSMAP, Organization of State Medical Association Presidents, which meets concurrently with the AMA.

It was, as usual, a busy session, as the delegation considered 147 resolutions and 74 AMA Council and Committee Reports. AMA Board of Trustees Chairman Joseph F. Boyle, M.D., Los Angeles, California, was chosen president-elect and Frank J. Jirka, M.D., Berwyn, Illinois, assumed the AMA presidency.

Some of the highlights of the meeting included the following:

President Reagan's Address

President Ronald Reagan spoke to the House of Delegates and praised the medical profession for high-quality medical care but expressed concern over the high cost of that care.

The chief executive was in full accord with his audience when he noted, "American medicine is the best in the world because it has remained private."

Reagan, the first president to address an AMA policy-making session since Richard Nixon launched his war on drug abuse in 1971 in an address to the AMA in Atlantic City, began his remarks with high praise:

"The quality of American medicine is unsurpassed, and on that we don't need a second opinion. What our space shuttle is to technology, our health care is to medicine . . .Your medical accomplishments are a gift to mankind that honors us all. And I have a special appreciation for the skill of some Washington doctors and nurses who patched up my old inner tube and had me rolling in no time. My respect for your profession is deep and personal."

The President said his Administration would help keep medical quality high through an active federal role in quality research and through a streamlining of the drug-approval process.

JCAH Accreditation Manual

As a result of numerous resolutions directed toward the JCAH, including a strongly worded one from the Indiana delegation, the House commended the Board of Trustees for its responsible consideration of these difficult issues.

The House also affirmed the following principles as the basis for any revisions in the JCAH Manual:

- Continue the use of the term "Medical Staff" in the title of the chapter and throughout the Manual.
- Delete any specific references to limited licensed practitioners now contained in the Medical Staff chapter of the 1983 *Accreditation Manual for Hospitals*. This does not preclude such practitioners from having hospital privileges consonant with their training, experience, and current competence if approved by the normal credentialing process.
- Provide consideration of qualified limited licensed practitioners in accordance with state law and when approved by the executive committee of the medical staff and by the governing board and, when their services are appropriate to the goals and missions of that hospital, taking into account the training, experience, and current clinical competence of the practitioners.
- Provide that the executive committee of the medical staff is composed of members selected by the medical staff, or appointed in accordance with the hospital bylaws. All members of the active medical staff, as defined in the Medical Staff Bylaws, are eligible for membership on the executive committee, and a majority of the executive committee members must be fully licensed physician members (Doctors of Medicine or Doctors of Osteopathy) of the active medical staff in the hospital.
- Assure that the medical care of all patients remains under the supervision and direction of qualified, fully licensed physicians (Doctors of Medicine or Doctors of Osteopathy).
- Assure that the continued high quality of care, credentialing of physicians and other licensed practitioners, and effective quality assurance programs remain under the supervision and direction of fully licensed physicians.

Payment for Physicians' Services

Another issue that generated lengthy discussion was a report presenting an analysis of payment mechanisms utilized by third party payors for reimbursement of physicians'services.

The Council on Medical Service presented a comprehensive discussion of *indemnity versus UCR reimbursement*

and asked the delegates to consider the matter and discuss it with their constituents over the next six months in preparation for discussion and possible action at the 1983 Interim Meeting in Los Angeles.

The Council reported that if third parties change to an indemnity system of payment, patients would be benefited by:

- Insuring their continued access to care not through external regulation of fees but through market forces.
- Increasing both physicians' and patients' sensitivity to costs and quality of care provided.
- Allowing them continued freedom of choice rather than being increasingly restricted to "participating" providers as a condition of coverage.
- Facilitating understanding and comparison of insurance coverages.

The report states that rate determination for third parties would be simpler.

For physicians, the Council said that the indemnity approach could bring improved patient/physician interaction by eliminating false expectations of the amount of the third party payment.

This approach, the report states, will also provide physicians the freedom to charge what they believe to be a fair and equitable fee, subject only to normal and effective market constraints.

Study of Cost Shifting

The House adopted a resolution calling upon the Association to conduct a study of the effects of cost shifting on physicians, third party payors, and hospitals.

- The resolution indicated that there is "growing evidence that inadequate reimbursement by government funded third party programs has forced hospitals to shift more costs to patients enrolled in private health insurance plans."
- In addition the resolution says that proposals such as prospective reimbursement and vouchers for Medicare have the potential to exacerbate the cost shifting problem.

Opposition to TEFRA Regulations

After modifying a Louisiana Resolution pertaining to TEFRA regulations, the House voted to continue to give a high priority to prompt withdrawal of regulations to implement Section 108 of TEFRA relating to the Medicare program's payment of physician services.

Definition of "Physician" in Medicare Statute

The House modified its existing definition of "Physician" to include Doctors of Osteopathy. The definition now reads:

"A physician is a person who, having been regularly admitted to a medical school or a school of osteopathic medicine duly recognized in the country in which it is located, has successfully completed the prescribed course of studies in medicine or osteopathic medicine and has acquired the requisite qualifications to be legally licensed to practice medicine or osteopathic medicine."

In addition the House voted to initiate and support legislation in the 98th Congress to amend appropriate sections of the Social Security Act to conform to the AMA definition of physician.

AMA Public Education Program

The House called upon the AMA to develop a model public education program for use by constituent societies.

The program would deal with the potential threat to the quality of medical care from legislative proposals, i.e., TEFRA and prospective payment systems.

Resident Inquiries to Residency Review Committees

The House adopted a report that guarantees anonymity of a resident physician who initiates an inquiry by a residency review committee into the conduct of a residency program.

The procedure incorporates two basic principles:

- That residents should have available a process that allows them to bring forth concerns without fear of reprisal.
- That residency program directors and their teaching staffs should be protected from spurious complaints.

Legal Counsel for Hospital Medical Staffs

The House voted to encourage medical staffs to consult with their own attorneys or those of their county medical society, state medical society, and/or AMA in securing knowledgeable counsel as appropriate.

Advertising of Prescription Drugs to the Public

The House adopted a report recommending that:

- The Food and Drug Administration act promptly to review the issue of advertising prescription drugs to the public.
- This advertising be held in abeyance pending the FDA's review.

The report cautioned that prescription drug advertising, whether to the health professions or to the public, that is false or misleading or does not give adequate information on beneficial as well as adverse effects is potentially dangerous and should be opposed.

Therapeutic Substitution

After much discussion including testimony from pharmacists' organizations in the reference committee, the House adopted a straightforward policy on therapeutic substitution. It reads:

"That the AMA vigorously oppose any concept of therapeutic substitution of drugs by pharmacists."

Boxing as a Health Hazard

The House adopted a resolution that calls on the AMA to:

- Publicize the deleterious effects of boxing on the health of participants.
- Encourage the elimination of boxing from amateur scholastic, intercollegiate, and governmental athletic programs as detrimental to the health of participants.
- Develop model legislation seeking to curtail the utilization of boxing as a public spectacle to the extent feasible.

Supplemental Report of the AMA Delegation

ACTION: Filed.

At the 1982 Annual Meeting, the AMA House of Delegates adopted Board of Trustees Report S establishing a major new initiative, then called a National Health Policy. The purpose of the project is ". . . to provide a broad-based outline of major concerns for the health sector, including both private and public elements, for the foreseeable future. This conceptual and philosophical framework will be consistent over a multiple-year period as the basis for specific action plans responding to the social, economic, scientific, educational, and political circumstances that evolve from year to year. The National Health Policy will give the AMA and others in the health sector (including various levels of government) the opportunity to abandon the traditional, year-by-year, piecemeal development of policy that responds only to pressures of the moment."

A two-stage methodology consisting of a set of basic principles will be developed, and then a set of proposals that are responsive to major health issues and at the same time consistent with the principles developed in the earlier part of the project.

The name of the project was subsequently changed to *Health Policy Agenda for the American People* in order to reflect more accurately the nature of the project.

During 1982, most of the activity on the project, which is expected to be of at least three years' duration, was the establishment of various multi-organizational units that will actually conduct the analysis, in developing and refining the specific methodology that will be used in the initial phases of the work, and in organizing staff resources.

The AMA is directly represented at all levels of the project. Also represented are the AMA Section on Medical Schools, the Medical Student and Residents Physician Sections, and the Association of Specialty Society and Service Delegates on the Steering Committee. The six Work Group Chairmen will also serve on the Steering Committee, and several of these chairmen are AMA Council representatives.

AMA Councils have been encouraged to be actively involved in the project. Each Council has the opportunity to submit to any Work Group its comments either in writing or by direct presentation. In addition, various specialty societies are represented on the Work Groups. Also, each of the Work Groups has a representative from the AMA Medical Student Section and a representative from the AMA Resident Physician Section. The Advisory Committee consists of 140 members, 113 of whom are representatives from state medical and medical specialty societies of the AMA House of Delegates.

In response to a House of Delegates action at the 1982 Interim Meeting, 18 state medical society representatives were appointed to HPA Work Groups; three per Work Group. In response to invitations to all of the state societies to nominate candidates, 31 societies nominated 83 individuals. Individuals from the following states were selected to serve on the Work Groups: Alabama, California, Connecticut, Florida, Georgia, Illinois, Indiana, Kansas, Minnesota, New York, Oklahoma, Oregon, Pennsylvania, Tennessee, Texas, Utah, Wisconsin and Wyoming.

Indiana is represented by the following physicians: Dr. John Knote, serving on Work Group 4 - Delivering Mechanisms/Process; Dr. Malcolm Scamahorn, representing the AMA's Council on Medical Service, serves on Work Group 3 - Health Resources; and Dr. Patrick J. V. Corcoran represents the AMA Council on Medical Education on Work Group 2 - Education. Other work groups are Medical Services, Evaluation, Assessment, and Control and Payment for Service.

The HPA Work Groups have been meeting regularly and have made considerable progress in their present task of principle development. The six Work Groups had their initial meetings in January and February. As a result of these first meetings, the Work Groups had from two to nine draft principles dealing with some of the policy areas assigned to each group.

At their second meetings held in March, April or May, the Work Groups reviewed and revised their initial principles and wrote additional principles. Additional meetings were held as needed in anticipation of the August Advisory Committee meeting. At that time, the Work Group chairmen presented their drafts, listened to comments and answered questions.

As of March 15, 1983, 35 (70%) of the state medical societies had appointed representatives to the HPA Advisory Committee. Also, 48 of 61 (79%) medical specialty societies, and 32 of 38 (84%) of the health related organizations had appointed representatives. Four organizations - the Institute of Medicine, American Society of Colon and Rectal Surgeons, the National Governor's Association and the National Conference of State Legislatures - have declined invitations to participate on the Advisory Committee.

Concerning the timetable, Phase I, Principle Development, should be completed by February 1984. The principles will then be distributed to the participating organizations for their consideration. Each organization will review the principles to determine the extent to which it agrees with the principles as the basis for policy development.

Phase II, Issue Identification and Development of Policy Proposals, is scheduled to begin in spring 1984. When completed, the AMA Councils and Board of Trustees will review the principles and policy proposals and will make recommendations to the House of Delegates. The House of Delegates will then determine the acceptability of each principle and policy. It may adopt alternative principles and policy proposals to substitute for those it finds unacceptable as the basis of AMA policy.

Medical Services

ACTION: Filed.

The business of the ISMA Commission on Medical Services involves acting on actions mandated by the House of Delegates as well as interim issues referred by the ISMA Board of Trustees.

During fiscal year 1982-83, the commission studied and recommended specific actions to the Board of Trustees regarding a proposal from General Telephone and Electronics (GTE) to become a distributor of an electronic information system, a proposal to modify ISMA's existing policy on physician advertising, and the concept of creating a Hospital Medical Staff Section.

All issues referred to the commission have been thoroughly discussed and reported back to the Board of Trustees with appropriate recommendations.

John D. MacDougall, M.D.
Chairman

Subcommission on Insurance

ACTION: Filed.

I am very pleased to report that the switch from BC/BS to The Lincoln was handled very smoothly and professionally by The Lincoln, and the total number of participants in the two health insurance programs have increased 22% over the previous year with approximately five new applications being received each week.

Members of the Subcommission on Insurance met three times so far in 1983 to review the in-depth claim data provided by The Lincoln, negotiate the new health and dental insurance contract for ISMA members and their employees, review the BC/BS audit of the members health insurance program for prior years, make recommended changes to The Lincoln health and dental program which should help stabilize future premium increases, and to handle other insurance related matters.

After careful review of all the data, the subcommission recommended, and the Board of Trustees approved, a rate increase of 35% for Plan 1, 23% for Plan 2, and 50% for Dental. In an attempt to reduce the increasing risk of adverse selection in the health and dental program, the Board of Trustees also approved the subcommission's recommendation that the open enrollment period for employees of ISMA members be eliminated; maximum payment be limited to $1,000 for pre-existing conditions on new groups coming into the health program with less than five lives (previously all groups, regardless of the number of lives involved, were getting the lesser of the old or new benefit); and dental benefits be limited to routine dental care (examination, fillings, flouride treatment, etc.) the first year, and be increased to the full range of benefits in the second year.

The Board of Trustees also approved the subcommission's recommendation that Plan 3, a Comprehensive Major Medical with a $250 deductible, be added to the insurance package. The subcommission felt this addition will provide more flexibility to the members and employees who don't want the first dollar coverage provided for in Plan 1.

In addition, the Medicare coverage was improved by putting all Medicare enrollees into Plan 1. Another major benefit change, approved by the Board of Trustees, was the provision for any non-disabled, unmarried children of an insured ISMA member, whose eligibility terminates because of maximum age requirement, be authorized to continue their coverage in Plan 2 or 3 at the member only premium, until the end of the calendar year age 29 is attained. Coverage will be offered without evidence of insurability if the dependent signs up within 31 days from the date he/she becomes eligible for this coverage beginning April 1, 1983. All other non-disabled, unmarried children of insured ISMA members already in this category will be eligible with evidence of insurability.

The subcommission has requested The Lincoln to put together a recommended differential payment plan for outpatient vs inpatient surgery for possible inclusion in Plan 2 and 3 only. This will be discussed at a future meeting of the subcommission.

A request from the Lake County Medical Society regarding the members' health insurance policy for northwest Indiana including some form of organized private sector peer review was discussed and referred to The Lincoln for further review and discussion with the Lake County Medical Society. The Lincoln will report back to the subcommission before making any changes which might alter the benefits or premium of the ISMA group sponsored program. This item will be discussed again at a future meeting of the subcommission.

Resolution 82-20, Cost Containment Indemnity Insurance, was also discussed by the subcommission and referred to the Business/Medicine Coalition with the recommendation that employers attempt to negotiate this type of policy for their employees.

A request from one of the members that another health plan be developed which would include a $1,000 or $2,000 deductible with an option of either 80%, 90% or 100% coverage after that will be considered as an option when the 1984 contract is negotiated.

The members of the subcommission were kept informed of the old and new products being offered by the Physicians Insurance Company of Indiana (PICI), property and casualty, and American Physicians Life Insurance Company, and highly recommend them to the membership. A proposal for health and accident insurance for the Oklahoma State Medical Association members was also reviewed by the subcommission and sent to the PICO board of directors for information.

It has been a very productive year so far, and I want to thank the members of the subcommission for all the time they devoted to reviewing the insurance data and proposals. I feel certain that through your efforts the members of ISMA have the opportunity to participate in the best insurance products available; and at a cost that is reasonable.

John D. MacDoughall, M.D.
Chairman
Garry L. Bolinger, M.D.
William Cutshall, M.D.
Francis Price Jr., M.D.
Dwight W. Schuster, M.D.
John R. Thomas, M.D.

Constitution and Bylaws

ACTION: Filed.

The commission has convened twice thus far in 1983. The Commission on Constitution and Bylaws worked diligently, incorporating all bylaw changes approved by the 1982 House of Delegates. Our commission has been privileged to have broad participation from its membership in a most active and efficient manner. It is our feeling that our current bylaw for-

mat is a very practical one that lends itself excellently as a reference text for each member of ISMA. While there will always be areas of concern or question in any such document as it concerns the individual member, we can assure you that it represents the collective thoughts of the vast majority of commission members. We feel that the ISMA bylaws are far above average compared to those of other organizations. We hope that those of you who have read and studied them feel similarly.

The commission is submitting resolutions calling for modifications that will maintain our bylaws at a current status commensurate with the prevailing policies and principles of Indiana medical practice and those of ISMA. Please give them your due consideration and be assured that your commission is diligently striving to fulfill its responsibilities as charged in the bylaws.

This report would be sadly remiss were it to fail to applaud the dedicated efforts of ISMA staff and most especially those of Mrs. Beckett Shady-King and Mr. Ron Dyer, without whose assistance our task would be hopeless.

Lloyd L. Hill, M.D.
Chairman

Medical Education

ACTION: Filed.

The Commission on Medical Education met Nov. 14, 1982 and April 23, 1983. At its Nov. 14 meeting, the chairman, Steven C. Beering, M.D., resigned as chairman after serving in that capacity for a number of years. The new chairman, Franklin A. Bryan, M.D., and vice chairman, Shokri Radpour, M.D., were appointed.

The commission had its first Site Surveyors' Workshop on Nov. 13, 1982. This was very successful and as a result a second workshop is planned for a date in November, 1983.

Accreditation/reaccreditation actions during the year resulted in six organizations and 11 hospitals receiving accreditation/reaccreditation. The Subcommission on Accreditation and the site surveyors devote much time to the accreditation process on a voluntary basis and provide an invaluable service to the ISMA and participating organizations and hospitals. For this, the commission is very grateful and expresses deep appreciation.

The commission has recommended an amendment to the ISMA Bylaws to clarify the activities and the responsibilities of the Commission on Medical Education and its Subcommission on Accreditation.

The chairman wishes to thank all members of the commission and its subcommission and site visitors for their work during the past year, with a special word of appreciation to Mrs. Beckett Shady-King, ISMA staff, for her outstanding service to the commission and subcommission.

Finally, Steven C. Beering, M.D., deserves special recognition for his activities in the ISMA and as chairman of the commission for many years, for which we owe him many thanks.

Franklin A. Bryan, M.D.
Chairman

Legislation

ACTION: Filed.

During the 103rd Indiana General Assembly, 2,200 bills were introduced, of which 350 were successfully passed by both Houses to become law, upon signature of Governor Robert Orr. The ISMA Legislative Commission studied about 95 bills to determine their impact on organized medicine and, through our lobbyists, recommended support for those bills consistent with ISMA House of Delegates policy.

As directed by the House of Delegates in 1981, the legislative summaries were sent to the members of the House of Delegates and the county medical societies. Bills considered in both Houses concerned child passenger restraint systems, hospital disciplinary authority, minor's abortion notice, medical licensing, habitual traffic offenders, drunk driving, optometric advertising, handicapped child-life protection, hospital cost containment, hospital financial disclosure, anatomical gifts, medical records, TB repeal, and medical corporation legislation as well as access to medical records.

From Jan. 5-8, 1983, the AMA's 9th Annual State Health Legislation meeting was attended by President John A. Knote, M.D., myself and ISMA staff. Richard King, our legal counsel, participated in the program on Jan. 7, speaking on Cost Containment/Competition—Private Sector. He did an excellent job and his speech was well received by the participants at the conference.

From April 11-13, 1983, the ISMA legislative delegation visited Washington, D.C. We were able to talk with the Indiana senators and representatives to express our views on a number of items. Probably one thing that we were all aware of was "cost containment." It was apparent that no one in Washington quite has a "handle" on the rising costs of medical care, but nevertheless Congress has passed legislation such as Diagnostic Related Groups (DRGs) in an attempt to control cost increases. We can expect more of this type of legislation in the future. I highly recommend that we continue our annual ISMA trustee visitation to express medicine's views to our congressmen.

In summary, your ISMA Legislative Commission has worked hard to follow the directives of the House of Delegates. I wish to thank the commission members who gave generously of their time and efforts and the ISMA staff for their excellent assistance. Thank you for allowing me to participate in the ongoing problems involving organized medicine in Indiana.

Paul Wenzler, M.D.
Chairman

Physician Impairment

ACTION: Filed.

The commission met more frequently this year, already having accomplished three sessions, including the fall of 1982. We will be meeting late this summer and again in late fall. In addition, we are working between meetings to develop recommendations for implementation of impaired physician plans for county medical societies, hospital staffs, county auxiliaries and district commissioners.

In the fall of 1982, we distributed to Indiana hospitals an impaired physician survey asking questions about the development of programming at the local hospital level for identifying, referring and monitoring impaired physicians, the availability of any sort of physician impairment prevention program and activities between county medical societies and local hospitals, etc. The response from that survey, which was quite good, revealed an overwhelming need for additional structure in impaired physician programs at the local level and a strong

request for assistance from ISMA in that process.

Currently, considerable additional pressure for increased activity to manage our impaired physicians is falling on the Indiana State Medical Association through its Commission on Physician Impairment. The Indiana Medical Licensing Board has formulated regulations forcing increased reporting which include elements very unfavorable to our peer review/impaired physician effort.

As chairman of the commission, I have participated in asking the governor for further evaluation of these proposed regulatory changes. We have received the promise of time for further exploration.

Initial discussions have been held, and support received, from John A. Knote, M.D., president, and others, concerning a large meeting in the spring of 1984 to teach and share with Indiana physicians involved in the impaired physician work, the nature of impairment as well as confrontive and rehabilitative approaches. Such a meeting will increase the local sophistication in identifying and managing impaired colleagues.

To understand the commission's work more fully, please consider the philosophical framework under which the commission is currently operating.

An impaired physician, for purposes of the plans we are developing, is an individual in active medical practice, who has previously functioned in a competent and productive fashion and who has demonstrated behaviors which suggest impairment and inadequacy in his function as a physician. Identification of such a problem can come through many sources, and there has previously been great inconsistency in how such individuals were managed.

Once a behavior problem has been identified, it falls to medical peers or hospital administrative staffs to initiate an immediate investigation, as the possibility of risk to the general public or patients from the potentially impaired physician exists. Such assessment may lead to temporary suspension of privileges or other efforts to protect the individual patient. Once this has been achieved, the focus should be shifted to the physician individually. He or she should be confronted in a gentle and supportive way. The physician may deny all difficulties or minimize problems, in which case, consistent efforts should be continued to provide health and guidance toward treatment and rehabilitation. It may be necessary to force further treatment as a requirement for restitution of hospital staff privileges, etc. Whenever possible, the goal should be to return the physician, in a rehabilitated state, to the competent practice of medicine, but with ongoing scrutiny through an identified and personalized monitoring system.

Physician impairment may be in the obvious areas of alcohol or drug abuse, or in psychiatric disturbances such as progressive depression or manic-depressive illness. Significant stress leading to impairment can also occur from sexual misbehaviors, severe financial and business problems leading to anxiety, etc.

It is not our intention, however, to address the issue of incompetence where lack of adequate training or skills is a problem unto itself and there pre-exists a particular complaint suggesting impairment.

The overall activity of identifying physicians with impairment is increasing, and so are the pressures and activities of the Commission on Physician Impairment. We anticipate increasing staff, budget, and voluntary manpower requirements in the future.

Larry M. Davis, M.D.
Chairman

Public Relations

ACTION: Filed.

One of the most exciting and satisfying aspects of public relations is the tremendous opportunity to communicate ideas and knowledge to large numbers of individuals. This year, ISMA is participating in a project that is enabling us to do both through the universal and dynamic medium of television.

The Commission on Public Relations has been, and still is, actively involved in helping develop an educational television series on health care, "Heartbeat," which is being shown on PBS television.

We assisted Custom Video Corporation, producers of the series, in raising the necessary funds through program sponsorship by health care groups.

ISMA has also contributed financially by sponsoring a half-hour "Heartbeat" program on stress. Each member of the PR Commission has made and continues to make a substantial contribution in time and effort to reviewing and editing scripts before filming to ensure medical accuracy. As chairman, I have personally reviewed each script. I would like to express my thanks and appreciation to the PR Commission for all their efforts and enthusiasm in the face of tight schedules and demanding deadlines.

We have also been able to communicate more effectively than ever with the full ISMA membership through the innovation this year of a semi-annual report from the Association president. Frequently, the "grass roots" physician is not fully aware of everything the Association, its officers and trustees are doing. This new tool for internal communications was designed to succinctly fill that need.

Ongoing internal communications have proceeded as *ISMA Reports* and *Siebenmorgen's Notes* continue to keep the membership informed of events of interest both within and outside the Association.

Our external communications have increased substantially with the introduction of a PR team concept among the ISMA staff. Staff members outside the PR department with public relations skills have been of assistance in generating a series of news releases ranging from the appointment of Dr. John Knote, to the AMA national health planning group to a release identifying the boost which physician employers have given the Indiana economy. Our health tips column, "Your Hoosier Doctor Says," continues to receive popular approval and publication in newspapers across the state, while a series of physician-produced articles dealing with sports medicine appears regularly under the ISMA logo in a racquet sports publication.

The PR Commission welcomed Mrs. Hulda Classen, auxiliary president, to its meetings and we plan to lend our assistance to the auxiliary as it pursues an educational program for grade school children on wellness. The auxiliary will also be instrumental in distributing a new health care costs pamphlet. This pamphlet, which explains to the general public the complex reasons behind rising health care costs, is also available to physicians for distribution to their patients along with other pamphlets developed by the PR staff.

While other convention activities kept attendance at the Physician Spokesperson Workshop low at the 1982 annual meeting, Dr. Alvin Haley requested a similar workshop be held for the residents in the family practice program at Methodist Hospital, Indianapolis. This workshop was a resounding success and plans are under way to promote workshops on the local level throughout the state.

Once again, ISMA, through the recommendation of the PR Commission, contributed $100 to the National Journalism Center to help train a new generation of responsible, young journalists.

Finally, the PR Commission selected outstanding pieces of print and broadcast journalism, recognizing excellence in health and medical reporting in the Journalism Awards competition. We also selected an outstanding physician to be honored with the annual Physician Community Service Award.

My thanks, again, to each and every member of the Commission on Public Relations for their fine work over the past year and to the ISMA PR staff for their contributions to our highly successful and visible public relations programs.

John V. Osborne, M.D.
Chairman

Ad Hoc Commission on Sports Medicine

ACTION: Filed.

I am happy to report that the ISMA Ad Hoc Commission on Sports Medicine, a committee which has been quiescent for seven years, has been revived and has been making progress.

The first meeting of this commission occurred April 27, 1983, when the following actions were taken:

1) Catastrophic insurance available to every high school athlete was strongly recommended by the commission, in light of recent serious head injuries associated with some athletic events.

2) The issue of placing trainers in high schools administering an athletic program is to be re-studied.

3) The subcommittee to study two-a-day games in basketball tournaments met June 8, 1983, and heard expert testimony from Dr. David Lamb, an exercise physiologist and past president of the American College of Sports Medicine. At that time it was unanimous by the five members that asking basketball players to participate in two basketball games in one day is risky and physiologically unsound. Performance levels are advesely affected and the recovery of body energy, resources and fluid replacement is inadequate in the short time between contests. The subcommittee felt that it was an unsound medical practice. This position will be taken before the complete committee and a detailed statement, including footnotes, will be forthcoming.

Additional items which I have placed on the agenda to be studied by this commission in the next year include:

1) Position on alcohol and sports.

2) Controlling weight loss in wrestlers.

3) Reducing heat-related injuries.

4) Position on anabolic steroids in sports in Indiana.

5) Prevention of sports-related injuries in Indiana.

6) Subcommission to study how to reduce the incidence of head injuries in sports.

7) Qualifications of team physicians.

8) Problems in several communities with pre-season physicials being administered by paramedical personnel and other non-physicians (including chiropractors).

9) Advertising among the various sports clinics.

10) Medications while competing.

11) Restricting cheerleaders from using trampolines.

12) Protective eyewear during athletic activities.

13) "Unpaired" organs and competition.

In conclusion, the Ad Hoc Commission on Sports Medicine is alive and well and we have been able to take action on one major issue in each of our two previous meetings. Our three best actions to date are:

1) The compulsory catastrophic health insurance for all high school football players in Indiana, giving them the necessary insurance they need in case they are injured.

2) The action of the subcommittee on advising the IHSAA of the medical risk of continuing two-a-day basketball games in the regional and semi-state tournaments.

3) The advisability of updating this Ad Hoc Commission on Sports Medicine to a full commission within the Indiana State Medical Association.

Gary L. Prah, M.D.
Chairman

Interspecialty Council on Scientific Affairs

ACTION: Filed.

The council met Wednesday, June 8, 1983. Much business, however, was conducted by mail or by phone throughout the year.

The council studied the Oraflex problem and presented a position paper, which was published in THE JOURNAL.

The council studied the recommended revisions of the Standards of the JCAH as related to hospital staffs and responded, providing much information of help to Dr. Knote as he responded to the JCAH for the ISMA.

Other issues were considered throughout the year, particularly as related to the activities in the General Assembly.

The number of resolutions and reports to be considered at the annual AMA meeting were reviewed by the council with specific recommendations to the AMA delegation from the ISMA.

Franklin A. Bryan, M.D.
Chairman

Medical Education Fund

ACTION: Filed.

The Indiana Medical Education Fund Committee met in February 1983 with Mr. Fran Brezette who represented the trustee, American Fletcher National Bank. The investment portfolio performance for the prior year was discussed. The fund's investment strategy has been affected by the decline in the rate of interest paid on short-term investments. Some longer term investment alternatives are being considered for the fund. The committee hopes to increase the balance of the fund in the near future.

The AMA-ERF provided $66,489.88 for the Indiana University School of Medicine during 1983. Prior contributions have been: 1982—$59,372.97; 1981—$55,556.83; 1980—$48,476.18; 1979—$41,427.60.

Dr. Steven C. Beering, while dean of the Indiana University School of Medicine, requested that $60,000 be made available for the continuation of the research scholarship and research fellowship programs. This disbursement was to be made after July 1983.

Fund Balance: 7-1-83	$523,141.19
AMA-ERF Contribution	66,489.88
Income	45,577.08
Trustee's Fees	(-1,097.85)
I.U.S.M. disbursement for 1982	(-100,000.00)
Fund Balance: 6-30-83	$534,110.30

John W. Beeler, M.D.
Chairman

Medico-Legal Review

ACTION: Referred to the Board of Trustees for consideration of an interprofessional code on the state level similar to that developed at the county level by Marion County Medical Society and the Indianapolis Bar Association.

The Medico-Legal Review Committee did not meet during the year because of the lack of any specific problems in the area of attorney-physician relations.

During the past year, however, your chairman has continued to participate on a similar committee of the Marion County Medical Society which has been developing, in conjunction with the Indianapolis Bar Association, an updated interprofession code.

It is the chairman's opinion that the code, now in effect in Marion County, could be the basis of establishing a similar code by the Indiana State Medical Association for adaptation, and distributed as a model to other county medical societies.

Since the initial organization of the Medico-Legal Review Committee, the ISMA has added to the staff two attorneys, who, in most cases, handle matters of legal concern to physicians and the Association.

Additionally, the authority and administration of medical defense is the responsibility of the ISMA Executive Committee.

With the somewhat parallel efforts of these groups, the legal staff, the Medico-Legal Review Committee, and the Executive Committee, it does appear that the legal needs and concerns of the Association are well attended.

John W. Beeler, M.D.
Chairman

Future Planning

ACTION: Filed.

The Future Planning Committee met on June 26 and discussed a number of issues, which, in essence, have a bearing on the progressive and anticipated development in Association plans and programs.

The committee discussed the P.R. Duke Proposal for purchasing ISMA properties and the Harshman Building. To facilitate discussion of building requirements, it was suggested that staff develop a laundry list of activities or programs that ISMA might become involved with in the future and relate that to space requirements; i.e., the PRO program and its implications on space/staff. Other information that should be developed includes: projection of future membership, the land value of the Headquarters Building and other properties, future organizational structure of ISMA (districts, etc.). Staff was instructed to survey other states regarding non-dues sources of income.

The committee also instructed staff to check with the Ohio State Medical Association and the Kentucky State Medical Association regarding building ownership and lease-back arrangements negotiated with their respective captive malpractice insurance companies, and encouraged the staff to proceed with negotiations for sale of the Harshman Building.

The Focus Group Interview programs, initiated by Dr. John Knote, were also reviewed by the committee. During discussion of the results of the first Focus Group Interview, there was a great deal of concern expressed regarding the need for continuing medical education. The consensus of the committee, however, consistent with ISMA policy, was that CME be voluntary in nature rather than mandatory and that the Medical Licensing Board of Indiana should have no role in establishing requirements or monitoring CME for physicians.

In reviewing a paper entitled, "An Environmental Analysis for ISMA," which is essentially a strategic plan that was developed by the executive director over a year ago, the committee recommended that an environmental analysis of the medical practice environment be conducted and updated periodically.

The committee was quite concerned about the prospect of an oversupply of physicians which it feels will work to the disadvantage of the patient as well as the physician. Members of the committee inquired as to whether any medical schools had begun to cut back on enrollments and whether anything was being done to stem the flow of FMGs into the U.S. and Indiana. The committee was informed that (1) Michigan State University was considering closing its medical school for financial reasons, (2) that there are 63,000 students in the "educational pipeline," which means there is a seven-year lag in entry into medical practice, (3) a recent study by ISMA staff concluded that the FMG population in Indiana constitutes 16.6% of the total practicing physician population as compared to a national average of perhaps 25%. Lake County has an FMG population of 52%. Due to the cut-back in capitation grants, many medical schools are already beginning to cut down on class size. Two years ago, the I.U. School of Medicine announced a

class reduction of 5% to be increased to 10% the following year.

ISMA's legislative initiatives that would have done away with the present preceptorship arrangement in Indiana did not make it through the last session of the General Assembly.

The committee also recognized that the new prospective payment system (DRGs) that will become effective Oct. 1, 1983, for Medicare enrollees has tremendous implications for medical practice. Consequently, the committee felt that the No. 1 priority for ISMA would be education of the membership regarding the impact of this new payment system. It was recommended that ISMA plan an educational conference on DRGs and invite the presidents, presidents-elect, secretaries or their representatives from the various county medical societies, and chiefs of hospital medical staffs; and that this conference be held prior to the Oct. 1 implementation date of the new prospective payment system (DRGs).

William C. VanNess II, M.D.
Chairman

Grievance

ACTION: Filed.

The Grievance Committee met during 1982-83 on three occasions and reviewed approximately 15 cases, of which eight are still pending.

As usual, the lack of good patient communication was the source of most of the complaints that were received.

The Grievance Committee wishes to thank all of the members for their attendance and valuable assistance during the past year.

G. Beach Gattman, M.D.
Chairman

Ad Hoc Committee to Reduce Drunk Driving

ACTION: Filed.

The 1982 ISMA House of Delegates adopted Resolution 82-19 establishing an Ad Hoc Committee to Reduce Drunk Driving. This Ad Hoc Committee, with the assistance and expertise of appropriate concerned persons, has worked diligently this past year.

The Ad Hoc Committee supported SB 171 and the chairman appeared during committee meetings of the 1983 Indiana General Assembly providing expert testimony regarding drunk driving statistics.

The ISMA Ad Hoc Committee to Study Drunk Driving has pledged to reduce death and injuries due to drunk driving by 50% during the next five years, and an additional 25% during the following five years.

Additionally, the ad hoc committee has been directly responsible for having questions regarding drunk driving added to the written test taken to obtain a valid Indiana driver's license.

This ad hoc committee has submitted a resolution to the 1983 House of Delegates requesting to become an ISMA standing committee.

I wish to thank the many individuals who have offered their expertise, in addition to the dedication of the committee members, in an effort to solve this most ominous problem.

Michael B. DuBois, M.D.
Chairman

Fifty-Year Club—1983

ALLEN COUNTY
Harry C. Dunstone, Angel Fire, N.M.
Richard H. Miller, Fort Wayne
Paul L. Stier, Fort Wayne

BARTHOLOMEW COUNTY
William B. Sigmund, Columbus

CASS COUNTY
Earl W. Bailey, Carmel

DAVIESS COUNTY
Arthur G. Blazey, Santa Claus

DECATUR COUNTY
James T. Morrison, Greensburg

DELAWARE COUNTY
Julia L. Adams, Muncie
Bryce P. Weldy, Hartford City

ELKHART COUNTY
Jonathan G. Yoder, Goshen

FULTON COUNTY
Charles L. Herrick, Akron

LAKE COUNTY
Miguel F. Beruben, East Chicago
Clementine E. Frankowski, Whiting

LA PORTE COUNTY
Russell A. Gardner, Michigan City

MADISON COUNTY
Guy E. Ross, Anderson

MARION COUNTY
Aaron L. Arnold, Indianapolis
Harry G. Becker, Indianapolis
Thomas A. Cortese, Indianapolis
David E. Jones, Indianapolis
Russell W. Lamb, Indianapolis
Dennis S. Megenhardt, Indianapolis
William H. Norman, Indianapolis
Bernard D. Rosenak, Indianapolis
Glen V. Ryan, Indianapolis
Byron L. Steger, San Antonio, Tex.

RANDOLPH COUNTY
Henry R. Shallenberger, Modoc

ST. JOSEPH COUNTY
Kenneth L. Olson, Cassopolis

TIPPECANOE COUNTY
Edmund L. VanBuskirk, Lafayette

VANDERBURGH COUNTY
Stephen L. Johnson, Evansville
Joseph C. Lawrence, Evansville
Milton J. Miller, Evansville
Victor V. Schriefer, Evansville

VIGO COUNTY
Leon L. Blum, Terre Haute
Khalil G. Wakim, Terre Haute

WAYNE COUNTY
Carl J. Harmon, Richmond

WHITE COUNTY
Violet M. Crabbe-Forbes, Wolcott

Physicians Insurance Company of Indiana Progress Report

ACTION: Filed.

It has been an exciting 12 months for Physicians Insurance Company of Indiana since we last discussed your insurance company with you. I am sure by now you have received numerous pieces of mail concerning Physicians Insurance Company of Indiana. This material should accomplish one of the primary goals of the company, that being accountable to you the physician members of the ISMA. When Physicians Insurance Company of Indiana was formed we promised that the company would advise the ISMA membership on the progress of the company on a continuing basis.

In your packets you received an interim report concerning the financial progress of the company from Jan. 1, 1983 to June 30, 1983. Rather than go over that report, I would prefer to provide you more up to date information as of Sept. 30, 1983. As you may recall, the company was formed with $3 million in assets. Asset growth has progressed at a steady pace and has now increased 17.2% since inception to $3,518,158 as of Sept. 30, 1983. At the end of September last year we had written premium of $98,000 from only 62 policyholders. Since the first of the year the company generated $406,664 from 362 policyholders. It should be pointed out that we have written 235 new insureds since the first of the year. Of that 235 new insureds, 35% of them have come on board in the last 90 days. As you can see we are continuing to grow at a very steady pace.

As of Aug. 31, 1983, the company had loss reserves of $264,715 set up and loss adjustment expense reserves of $111,720. As in all new companies that sell professional liability insurance, these are reserves set up for known claims and future claims. The company has not made any loss payments to date on medical professional liability. It would be nice if this trend would continue but, unfortunately, we know better.

Earlier this year the company developed a full lines program of property and casualty coverages which most physicians could carry their protection through. These programs include such policies as homeowners, automobile, office protection coverage, commercial auto, and others. These programs were designed with the physicians in mind during development.

The last item I would like to talk about is, in my opinion, the most important item. During the discussion stages of PICI it was decided to form the company using the assistance of Physicians Insurance Company of Ohio, Physicians Insurance Company of Michigan, Kentucky Medical Insurance Company and, of course, the state medical association. Since PICO and PICOM put up the majority of the funds which enabled us to form this company, they currently maintain the majority interest in this company. During those discussions they agreed to sell their majority interest in PICI to the physicians of Indiana. As a result of their agreement on Feb. 10, 1983, a filing was made with the Securities and Exchange Commission to put together a secondary offering of PICI shares that are currently held by PICO and PICOM, which may be sold to physicians within the state of Indiana. This offering is being done through the prospectus which I am sure you all have received a copy of and being sold by City Securities Corpration, an Indianapolis-based brokerage firm. This offering is to last one year with an expiration date Feb. 10, 1984. To date we have not sold a sufficient number of shares so that the physicians of Indiana will own the majority interest in this company. I ask each and every one of you to support this endeavor of the state medical association by individually purchasing shares of your company. You can contact City Securities Corporation in Indianapolis, or I am sure that anyone here on the staff or with PICI can provide you with the information that you need.

Martin J. O'Neill, M.D.
President and Chairman of the Board

American Physicians Life

ACTION: Filed.

One year ago at our annual meeting we were in the final weeks of a stock sale for Indiana Physicians Investment Company, the sole owner of Indiana Physicians Life Insurance Company. Soon after our meeting, it was acknowledged that the stock sale had not brought about a majority ownership in Indiana Physicians Investment Company by Indiana physicians, and various options of how we might operate in the future were reviewed.

We chose an option which has brought about a merger of Indiana Physicians Life Insurance Company with a sister company, PICO Life Insurance Company, to form a new, larger and stronger company—American Physicians Life.

At the same time, the capital assets of the company were increased by the addition of representation from Kentucky and Michigan by the Kentucky Medical Insurance Company and the Physicians Insurance Company of Michigan, respectively, representing physicians in their states. The goal is to develop a regional company in the central and southeastern portion of the United States, possibly involving 18 to 20 states at some time in the future.

American Physicians Life, like its predecessors, offers a comprehensive line of life insurance and related financial planning services designed specifically to meet the specialized needs of doctors. Life style, a universal life plan, group term life, professional disability income, qualified pension plans and tax deferred annuities are just a few of the innovative and competitive plans available to individuals and professional corporations.

In addition to the individual products, American Physicians Life is the underwriter of several group plans for members of the Indiana State Medical Association. These sponsored plans include group term life available on an individual or a corporate basis, a group IRA and a hospital confinement plan. At the present time, American Physicians Life is a regional life insurance organization currently operating in Indiana, Ohio, Kentucky and Michigan, and soon will be expanding into Wisconsin and, probably, Missouri. We have agents that are identified in our state journal throughout the state for the convenience of our membership. Progress to date is in line with goals established almost a year ago.

Physicians Insurance Company of Ohio is the majority owner of Physicians Investment Company which is American Physicians Life's parent company. Sharing minority ownership positions are the Indiana State Medical Association, some Indiana physicians, Physicians Insurance

Insurance Reports

Company of Michigan and the Kentucky Insurance Company. These interests are represented by the following Board of Directors:

Arvine G. Popplewell, M.D., Chairman, Private Practice, Indianapolis

John E. Albers, M.D., General Surgery, Cincinnati

Donald S. Chamberlain, M.D., Radiology, South Bend

Carl Cooper, Jr., M.D., Family Medicine, Bedford, Ky.

Arthur B. Eisenbrey, M.D., Neurological Surgery, Detroit

John J. Gaughan, M.D., Radiology, Cleveland

David A. Hull, M.D., General Surgery, Lexington, Ky.

Thomas W. Morgan, M.D., General Surgery, Gallipolis, Ohio

D. Brent Mulgrew, Esq., Associate Executive Director, OSMA, Columbus, Ohio

William G. Olsen, President, PICOM, Lansing, Mich.

David L. Rader, President of the Company, Columbus, Ohio

Benjamin H. Reed, M.D., General Practice, Wauseon, Ohio

William E. Sovik, M.D., Ophthalmology, Youngstown, Ohio

I appreciate the opportunity of serving you as a representative on American Physicians Life Board and I am pleased to make this report today.

Arvine G. Popplewell, M.D.
Chairman of the Board

Report of The Journal Editor

ACTION: Filed.

The financial statement for the first three quarters of the fiscal year shows THE JOURNAL on the sunny side of the budget. As a result of more income and less outgo than expected, the good news is approximately $8,000. Both national and local advertising revenues are ahead and the subsidy for the continuing medical education articles, which are written and supported by the Continuing Education Division of IU School of Medicine, is more than expected.

We have received an adequate number of scientific articles. These, together with a proper proportion of socio-economic discussions, have been maintained in numbers which allow time for proper preparation and an interval between acceptance and printing of six or seven months.

We have a new printer. Starting with the May 1983 issue, Western Newspaper Publishing Company of Indianapolis has handled the typesetting, printing and binding under one roof. Many advantages have accrued from the change to an excellent facility close to ISMA headquarters.

During the year, we have taken advantage of Word Processor equipment for typing editorial inserts which may be produced economically on special paper and bound in THE JOURNAL at the last minute. Journal content requires most of the month preceding delivery for typesetting, printing and binding. Special typewritten inserts may be prepared three of four days prior to binding. Fast-breaking information may be dispensed quickly by this method.

The staff of THE JOURNAL has under consideration a title change. Of the 40 or so state medical journals in the United States, 10 have adopted the style of Indiana Medicine. It is a new style—short, compact and snappy. If adopted, it will be accompanied by our present title in small type to indicate to indexers and libraries that the publication continues but with a new title.

Frank B. Ramsey, M.D.
Editor

Report of the Treasurer

ACTION: Referred for Audit

An unaudited report of receipts and expenditures and the state of funds on hand at Sept. 30, 1983, and the 1983-84 budget were included in the House of Delegates packet.

Douglas H. White, M.D.
Treasurer

Barbara Koons
Print (Single Story)

Barbara Koons, an Indianapolis freelance writer, won the ISMA single story award for her article, "Give Your Baby a Chance," which appeared in *Indianapolis Magazine*.

The article thoroughly explains what genetic counseling is and is not, what the procedures are, who should consider genetic counseling, and the sources and resources in Indianapolis for counseling. Accompanying sidebars discuss birth defects, prenatal diagnosis and a human genetics educational program for teenagers.

Barbara, a native of Mansfield, Ohio, has worked as a general reporter and feature writer for a daily newspaper and in the editorial department of Encyclopedia Britannica. She has studied at Northwestern University and is presently attending classes at IUPUI working on a B.A. degree in English. She and her husband, Dr. Karl M. Koons Jr., a general surgeon, have three children.

Marilyn Mitzel
Television (Series)

"Facing the Future" is the title of the award-winning television series by Marilyn Mitzel, a reporter for WRTV, Indianapolis.

The series deals with people who, although born physically normal, suffer the trauma of disfigurement. The series examines how victims deal with their trauma and with the difficulties and suffering often imposed by unthinking strangers. The series, which offers an inside look at how the facially disfigured are treated by society and how they would like to be treated, is now used by the Wishard Burn Unit as a public education tool.

Marilyn has been with WRTV since 1978. Previously, she worked for a television station in Bismarck, N.D. She holds a bachelor's degree in mass communications from Moorhead (Minn.) State University and is now enrolled in a master's program in radio-television through Butler University.

She has, on two previous occasions, won awards from United Press International for medical reporting.



Dillon



Stegemiller



Paige

Jane Stegemiller
Print (Series)

Jane Stegemiller, health and medical reporter for the *Indianapolis News* since 1981, received the ISMA award for her comprehensive series, "The High Cost of Health Care."

Jane won the print (single story) ISMA award last year for an article on hypertension.

"The High Cost of Health Care" took seven months to produce as authorities around the country were consulted on the complex problems of cause and effect in health care costs. In the series, the contributions of hospitals, insurance carriers, government, industry, physicians, and individual consumers to the high cost of health care were explored, with no one group singled out as sole cause. Instead, the problem was viewed from a broad, analytical perspective. In addition, actions to help solve the problem of high costs were examined—from the benefits of smoking cessation and "taking charge of your health" to the cost options of insurance companies.

Jane is an Indianapolis native who was graduated from DePauw University summa cum laude in 1979 with a degree in English literature. She has previously won journalism awards from United Press International, the American Lung Association and the National Hearing Association.

Karen Dillon
Television (Single Story)

The winning entry by Karen Dillon, health specialist at WTHR-TV, Indianapolis, was "Medical Marvels," a study of advances in laser surgery.

"Medical Marvels" focuses on two procedures using laser surgery: the removal of wart-like growths of tissue on the surface of the vocal chords, and the treatment of leaking blood vessels in the eye. It is estimated that the eyesight of 13,000 Americans may be saved annually with the laser procedure.

Karen, originally from Chicago, is a graduate of Indiana University with a double major in telecommunications and forensic studies. Before joining WTHR, she worked for WEHT-TV in Evansville, where she won two Sigma Delta Chi journalism awards. In 1980, she was chosen as one of the "Outstanding Young Women in America."

Timothy Paige
Radio

Tim Paige, news consultant and special assignments reporter for WTLC radio, Indianapolis, won the radio award for his three-part series, "Herpes: It's Not What You Think."

Seeking to remove some of the sensationalized stigma of herpes, Tim's series was designed to clarify misconceptions and explode the myths about herpes as a "dreaded, disfiguring, debilitating" disease. The series features interviews with physicians, sociologists and herpetics to explain the disease, its physical, psychological and social effects on people, and its effect on society. Information also is given on the recently formed herpetic "Help" group, which now uses the series as part of its orientation for new members.

Tim has been with WTLC nearly eight years, presently on a part-time basis. He is an associate professor in charge of radio instruction at the Defense Information School in Indianapolis. He holds a master's degree in education, instructional systems technology.

In the past he has shared in honors received by WTLC news teams and, in 1981, he received a first place Metro award from the Associated Press.

ACTION: Filed.

First District

This is my final report to you as an ISMA trustee. The past six years have been challenging for medicine; the future even more so. I feel strongly that the only realistic way for us to meet these challenges is through organized medicine. I encourage you to participate and to support your newly elected trustee, Dr. E. DeVerre Gourieux, and alternate trustee, Dr. Wallace Adye, Jr.

The First District annual meeting was held June 26, 1983, at the Evansville County Club. Dr. John Knote, ISMA president, alerted everyone to the proposals being considered by the Medical Licensing Board and encouraged all to attend the ISMA annual convention in Evansville Oct. 14-17, 1983. Dr. Gilbert Wilhelmus also moved to allocate $1,000 to the Auxiliary for ISMA convention expenses. Both motions were seconded and unanimously approved.

Dr. Eugene Hendershot, ISMA delegate from Vanderburgh County, announced that Dr. Forrest Radcliff is seeking the position of vice-speaker and would appreciate each physician's support.

Dr. Steven Elliott, president of First District, welcomed additional guests from ISMA including Dr. and Mrs. George Lukemeyer, Dr. and Mrs. Paul Siebenmorgen, Dr. Lawrence Allen, and ISMA staff Sara Klein and Rosanna Iler. Officers of First District elected to serve in 1983-84 are Kent McKinney, M.D., president; Donald Elder, M.D., vice president; and Jeff Rendel, M.D., secretary-treasurer. Dr. Martin Bender announced the winners of the Eighth Annual Bob Acre Memorial Golf Tournament. They were Dr. Anthony Dallas, Low Net, and Dr. John Tisserand, Low Gross.

Membership in First District increased 2% to a total of 469 ISMA members as of Dec. 31, 1982. Seventy-nine per cent of First District members belong to the AMA.

John A. Bizal, M.D.
Trustee

Second District

Linton, Indiana, hosted the 1982 Second Medical District meeting which was presided by Thomas Bailey, M.D., of Greene County Medical Society. John A. Knote, M.D., Martin J. O'Neill, M.D., George Lukemeyer, M.D., and members of ISMA staff were present and rounded out the scientific meeting. Dr. Frank McKinney presented a picture of the economy at the banquet supper. Fred Buehl, M.D., was elected president for the coming year and the Knox County Medical Society will host the 1983 Second Medical District meeting in Vincennes, Ind.

During the past year I have attempted to represent the feelings and desires of the members of the Second District. I hope this has been accomplished. I would like to express my gratitude to the members for their support and allowing me to represent them. I have tried my best to keep abreast of the issues. The following is a list of the main issues faced and discussed by your ISMA Board of Trustees and our collective attempt at the proper solutions:

1) Last fall the House of Delegates instructed the Board of Trustees to deal with the almost universally disliked VIP program of BC/BS—including litigation if all other avenues of communication failed. They also voted in favor of a dues increase of $25 per year for two years (creating a Medical Defense Fund) to deal with any third party policy which may interfere with the physician-patient relationship. During the past months, the ISMA Board has participated in several unproductive meetings with BC/BS. Internal and external legal counsel was sought and the recommendations were either a suit concerning antitrust action or a suit concerning discrimination of patient payment.

2) The Tax Equity and Fiscal Responsibility Act (TEFRA) hit everyone between the eyes, but "slammed" the medical care field especially hard. Most physicians feel this is a result of the government being compelled to do something urgent and monumental in nature to deal with rising health costs. The quality of patient care and scientific medicine will ill be served by this Act, which amounts to an administrative declaration warranted neither in law nor in medicine. Most of us feel that the increase in cost of regulation will result either in downgrading medical care or possibly simple denial of admission.

3) The Joint Commission of Accrediation of Hospitals (JCAH) put in their quarter's worth and are attempting to change the "medical staff" to "organized staff" and/or to redefine the term physician to include M.D., D.O., D.D.S., podiatrists, optometrists and chiropractors. Your trustees are vigorously opposed to these revisions and feel that these changes will: a) increase costs, b) decrease standards of hospital care, c) cause needless pain and suffering by untrained "practioners", and d) cause public confusion and misunderstanding of health care roles. ISMA members must stand by the present medical staff bylaws and consider future legal counsel representing the medical staff if and when attempts to alter the bylaws occur. WE MUST KEEP THE MEDICAL STAFF "MEDICAL".

4) The past year saw the "unfunding" (a questionable demise) of the Health Systems Agency. The dragon is not quite dead and the Health Planning Act has been extended to July 1985. The Indiana State Board of Health will probably take over the HSA functions and process the data and information supplied. Hopefully, "grass roots" local groups will be formed to supply this information and data. All this is in a state of flux.

5) Business-Medicine coalitions came to Indiana this year and have produced much beneficial discussion between the groups. No coalition has yet been formed in the Second Medical District.

6) In spite of the House of Delegates instructions in 1972 for the ISMA Board of Trustees to form an insurance company for malpractice coverage, the physicians in Indiana decided this year that they did *not* want to own an insurance company. Because of this, the Physicians Insurance Company of Ohio purchased the remaining shares and formed the American Physicians Life Company (APL). This larger, older, stable company now sells universal life, group life, professional disability income, qualified pension plans, and tax adjusted annuities. Another physician-owned company (The Physicians Insurance Company of Indiana—PICI) now offers medical professional liability insurance, office protection, home owners insurance, auto coverage and commercial/personal excess liability protection.

7) The group health insurance policy endorsed by ISMA was changed from BC/BS to Lincoln National Life last year mainly because of premium increases of 11% (Lincoln Life) vs 45% (BC/BS). During the past year, much to our delight,

Lincoln Life has supplied claims-made data to ISMA. This was a request BC/BS never honored. Unfortunately, this data indicated a 50% longer length of hospital stay for physicians and a 100% longer length of hospital stay for physicians' spouses. These members were notified. This year Lincoln Life had to raise premiums an average of 40%. (This was still lower than a comparable policy with BC/BS.)

8) This year saw the purchase of an airplane by ISMA. Cost analysis indicated that purchasing would be more economical and result in more effective travel by the ISMA officers and staff. The past six months' figures show ISMA behind the projected analysis (mainly because external leasing has not been up to projections), but we are under last year's costs and under the amount budgeted.

In summary, unfortunately, much of the above is rather negative to the practice of medicine as we know it. As our ISMA president-elect has experienced, "Everyone is trying to get 'his fair share' and many of the issues consist of very destructive interactions with physicians. Attempts are being made to relegate us to blue collar worker status, with other groups being relegated (or legislated) up to our status." We feel that all physicians must belong to and become involved with the AMA and ISMA—or maybe possibly belong to one of the major unions in the future.

I begin the next year with two thoughts: 1) How do we deal with the inevitable demand "Do more for less?" and 2) Can you name any government program that has resulted in a decreased cost by an increase in regulation?

Ralph W. Stewart, M.D.
Trustee

Third District

District meeting held on May 14 in Clarksville with Dr. Peter Livingston, secretary-treasurer, presiding over the meeting. Memorial reading was given by Dr. Livingston for Dr. Eli Goodman, our district president and also past ISMA president who died in the past year. The new officers were elected: president—Everett Bickers; vice president—Marvin Scott; secretary-treasurer—Peter Livingston; alternate trustee—Tom Neathamer.

The 1984 site for the district meeting will be in the New Albany area. There are approximately 21 members from the Third District who attended the district meeting and 10 ISMA officers and staff present. The treasurer's report indicated an estimated balance of approximately $3,600 with expected expenses to be $1,400 with an anticipated balance of $2,200. $10 dues for 1984 were established.

Dr. John Knote, ISMA president, commented on ad hoc committees and their activities on drunk driving and sports medicine. He also highlighted the VIP Program, PICI, the coalitions, legislative updates, the focus group interviews, and Joint Commission of Accreditation of Hospitals with medical versus organized staff. Dr. Paul Siebenmorgen, ISMA Board chairman, also gave a brief report as did Dr. Everett Bickers, AMA trustee, and Dr. Larry Allen, speaker. Mr. Don Foy presented a report on malpractice suits and the compensation fund.

The trustee's report indicated that there were approximately 209 members in the Third District. The other highlights included: PICI, IPLIC, legislative updates, VIP, Business Medical Coalitions, appointments for commissions and reference committees, PAC members and the upcoming annual meeting in October in Evansville.

The Blue Shield Board member from the Third District volunteered to give a Blue Shield report, but was not called upon to give such.

The evening dinner was attended by approximately 65. After enjoying the evening meal, the group was entertained by Dr. Morton Marcus, an I.U. economist.

R. G. (Dick) Huber, M.D.
Trustee

Fourth District

The 4th District held its annual meeting at the Country Club in Aurora, Ind., May 18, 1983. An excellent day was spent in golf and tennis, and dinner was well attended. Election of officers was held for the coming year. I was re-elected as trustee for the next three years, and Dr. Howard Jackson from Madison is the new president. The 4th District will hold its 1984 meeting in Madison, Ind. Dr. Baker from Aurora won the trophy for the golf outing. I wish to take this opportunity to thank the state delegation who attended our district meeting as well as all persons from Aurora who participated in planning and developing it. I look forward to seeing all the 4th District members at the meeting in Madison in 1984.

The past year in the state medical association has been very involved and busy. We have actively negotiated and developed rapport with third party carriers. Further insurance programs have been developed in association with Lincoln National Life. Our malpractice and life insurance companies have begun to gather momentum and have been growing and enlarging. We have merged with companies in surrounding states to make one large company which appears to be an excellent organization with rapidly increasing sales.

We have been deluged with medical problems associated with emergi-centers, HMOs, etc. Alternative modes to the traditional forms of medical care are being offered and will continue to be one of the major problems facing organized medicine in the next few years. I hope the ISMA will be actively involved in monitoring such programs. I am looking forward to serving as trustee again for the 4th District and dealing with these problems.

Mark M. Bevers, M.D.
Trustee

Fifth District

The trustee of the 5th District has been serving as chairman of the Board of Trustees for the past two years and consequently the report of this trustee will be found primarily in the report of the chairman of the Board. Please read it for the information as to the activities of the 5th District trustee.

At press time, the 5th District has scheduled its annual medical society meeting for August 31, 1983, at the Terre Haute Country Club. Tom F. Orman, M.D., president, will preside and Peggy S. Swaim, M.D., secretary-treasurer, will be handling the financial affairs. Indiana University professor Martin J. Marcus, research economist, will be the after dinner speaker.

I wish, once again, to thank the doctors of the 5th District for their participa-

tion in the various affairs of the ISMA and for permitting me to have the stimulating experience to serve as the district trustee.

Thanks also go to those who have helped so much to handle the extra patient load when I am going about the business of the Association, and to Sara Klein, our district staff representative, who has been so *beautifully helpful.*

Paul Siebenmorgen, M.D.
Trustee

Sixth District

The practice of medicine in the Sixth District of ISMA during the 1982-83 year reflected a number of influences common to our state in general. The recessionary influences continue to prevail, most notably in New Castle and Connorsville, and to a lesser degree in Greenfield, Richmond, and Shelbyville, but to some extent, throughout the district. Overall number of physicians in active practice has increased. Expanded hospital facilities have been completed in five of our communities.

The level of participation in ISMA activities remains above average, I believe, but commission and committee representation should improve.

The Sixth District annual meeting was hosted by the Hancock County Medical Society in Greenfield at the local country club this past May. We are indebted to Dean Felker, M.D. for his efforts. Lee Corso furnished the evening entertainment and was excellent. The business session was well attended by state staff and officers who discussed pertinent medical-political subjects.

The officers for the 1983-84 year elected were as follows: president, Wylie McLaughlin, M.D., New Castle; vice-president, Dean Felker, M.D., Greenfield; and secretary-treasurer, Douglas Carter, M.D., Shelbyville. Clarence Clarkson, M.D., Richmond, was re-elected to serve as alternate trustee.

Clarence Clarkson and I continue to represent your interests at the regular Board of Trustees meetings and special sessions as well as the annual meeting.

Davis W. Ellis, M.D.
Trustee

Seventh District

In the past, our Seventh District trustee report has concentrated on the activities of our district meeting. Unlike the past, the district meeting has not occurred prior to the deadline for submission of this report. In an effort to bring vitality to the district, substantial changes have occurred and our meeting will not take place until Aug. 17.

A completely new format for the Seventh District Medical Society meeting has been developed with the cooperation of the district officers, trustees and staff. This year's meeting will be held at the Indiana Repertory Cabaret Theatre. Although an opportunity to play golf at the Speedway Golf Course will still be provided for those who wish, the move has de-emphasized golf and the necessity to hold meetings at golf or country clubs.

The Seventh District Business Meeting will be held in the Cabaret Theatre at 5:30 p.m. During this official function, our spouses will have an opportunity to tour the theatre, guided by an IRT spokesperson, and attend a style show featuring costumes used in the theatre's numerous productions. We hope the tour and style show will be an enjoyable first attempt to provide a "spouse program." The cocktail hour will be hosted by the Williams-Townsend Agency representing American Physicians Life. Dinner will be catered by the "Brasserie," which has established a fine reputation for delicious entrees. Entertainment for the evening will be provided by a five-member group, the "T-BEARS," an a-cappella group featuring music of the '50s and '60s.

The district has specifically encouraged the participation of physicians in training and has extended a substantial discount for the evening's activities for Resident physicians.

Donald C. McCallum, M.D.
H. Marshall Trusler, M.D.
Trustees

Eighth District

This past year has been very busy in regard to activity involving important issues confronting ISMA and the private practice of medicine. Many of the items will continue to require careful attention and deliberation if we are to preserve our role in the practice of medicine.

The Eighth District Medical Society had only one meeting during the year. This was the annual meeting, which was at Portland Country Club June 15. Dr. Alfonso Lopez presided at the meeting and Dr. Frank Bonser served as secretary and gave the treasurer's report. Election of officers for the 1984 annual district meeting was conducted and Dr. Joseph Copeland was elected president and Dr. Steven Wright was elected secretary-treasurer. The meeting will be held June 7, 1984, at the Anderson Country Club.

Guests were introduced and included the following: Dr. John Knote, ISMA president; Dr. George Lukemeyer, ISMA president-elect; Dr. Paul Siebenmorgen, chairman of the Board of Trustees; Dr. Martin O'Neill, ISMA immediate past president; Dr. Lawrence Allen, speaker of the House of Delegates and candidate for ISMA president-elect; Dr. Shirley Khalouf, vice speaker and candidate for ISMA speaker of the House of Delegates; Dr. Herbert Khalouf, chairman of the Executive Committee; Don Foy, ISMA executive director; and Howard Grindstaff, ISMA field representative.

The meeting was well attended and a variety of topics were discussed. An update on Blue Shield's V.I.P. plan was given. Discussion occurred regarding Delaware-Blackford Medical Society's resolution calling for an emergency session of the House of Delegates for the purpose of authorizing funding of an educational campaign opposing federal intervention in medical care. It was the opinion of Dr. Knote that specific recommendations needed to be proposed and that an emergency session was probably not feasible at the present time.

Following the business meeting a very good dinner was served. Dr. Otis Bowen concluded the evening with a thought-provoking speech regarding the role of the physician in medicine's future.

I again wish to solicit your views in the coming year as I attempt to represent the district at ISMA and carry out the duties of district trustee. In view of the many efforts to change medical practice, unity and participation of all physicians becomes more necessary to preserve the high standard of care we presently enjoy.

Richard L. Reedy, M.D.
Trustee

Ninth District

This has been a very successful and gratifying year for 9th District physicians. We have again been very fortunate to have John Knote, M.D., of Tippecanoe County

as president of ISMA. We are all grateful for his dedicated leadership. Also highlighting the year was the district meeting held June 6 with Clinton County as our host society. Attendance for the entire day's activities indicated that physicians in our district are interested in learning about and participating in ISMA activities.

During the business session, we were updated by ISMA officers, staff and commissions relating to malpractice claims, types of insurance offered to members, AMA activities, as well as ISMA Public Relations and Ad Hoc Sports Medicine commissions. Dr. Knote outlined plans for the upcoming annual meeting and reported on some of his activities as ISMA president. Dr. Adrian Lanning of Hamilton County, after serving the district well during the past year as alternate trustee, was elected for a three-year term.

After an excellent dinner served by the Frankfort Country Club, staff members and guests were honored to hear an address by Dr. George Lukemeyer, ISMA president-elect.

Jasper County was selected as host society for our next district meeting in June 1984.

I have enjoyed meeting with many county societies this past year and serving as trustee. One of my objectives remains to seek and obtain a broader participation of members in ISMA activities and increased support for IMPAC.

Max N. Hoffman, M.D.
Trustee

Tenth District

At the annual meeting of the Indiana State Medical Association held last October 17, 15 of the 18 voting members eligible were present at the convention, including three from Porter County.

The major activity of the year centered upon participation in the Business-Medicine Task Force, which deals with health care costs in northwest Indiana. Out of this group, the Emergency Room Study Committee evaluated emergency room costs in local hospitals. The Business-Medicine Task Force consists of 22 employers, representing 70,000 employees, one of the largest statewide business-medicine task forces.

Dr. Felix Milan, representing the Commission on Physician Impairment, personally and directly contacted each area medical society and hospital to deal with developing and implementing this program in our county.

On March 22, 1983, a TEFRA seminar was held at the Lake County Public Library, and was open to all 10th District members.

The 10th District annual meeting is scheduled for Sept. 22, 1983, at the Woodmar Country Club in Hammond. The annual meeting will include, among other things, a golf outing. Election of the trustee will take place at that time.

The 10th District Governmental Affairs Committee remained active throughout the Legislature. Members of the committee visited state legislators at our weekly meetings.

Charles D. Egnatz, M.D.
Trustee

Eleventh District

The Eleventh District meeting was hosted by Carroll County, aboard the Madam Carroll on Lake Freeman. The business meeting was well attended by the ISMA official family and staff. We of the district appreciated their attendance and participation. This was followed by dinner and a most entertaining speaker. Our thanks to Carroll County for a most enjoyable meeting. Next year's meeting will be hosted by Wabash County.

The Board has had another busy year dealing with the multiple items which affect each of us. Among the many items considered was a continuing review and comment on the new proposed regulations by the Medical Licensing Board. ISMA had testified at several public hearings on these regulations. A most time consuming item has been the Board's effort to deal with the many problems associated with the Voluntary Incentive Program. At the time of this writing it appears as if litigation may be required to settle this matter. Some of the proposed changes in the JCAH manual were of great concern. With imput from ISMA as well as many other state societies, these are being modified.

I was again privileged to serve as chairman of the Executive Committee. The Committee had a busy year dealing with many items which were referred to the Board. Declining interest rates and continually increasing costs are continually tightening the budget and the Committee has tried to keep within the budget.

I appreciate the opportunity to represent the Eleventh District on the Board of Trustees. I would like to encourage and ask for the continued input and participation of each of our members.

Herbert C. Khalouf, M.D.
Trustee

Twelfth District

Your Board of Trustees has struggled with many issues in the past 12 months. The alphabet soup of alternative forms of providing and paying for health care (DRG, IPA, UCR, HMO, PPO, VIP, par, non-par, etc.) is getting to be a lot like studying hepatitis. While the goal of these alternatives is cost containment (which has yet to be proved) the unmistakable price is the further erosion of the doctor-patient relationship.

The VIP issue has occupied a great deal of the Board's time throughout the year. As of the time this report was written, I believe we have made significant progress in protecting the rights and freedom of the non-participating as well as the participating physician. This has not been a painless effort.

In the near future implementation of the DRG prospective pricing program will begin. I predict this will have more of an impact on the practice of medicine than anything since the Medicare law was passed. Although the New Jersey prospective pricing experiments were similar to the DRG law, there are many differences. Essentially, the DRG program consists of an experiment over the next three years on a national scale. The ripple effect of cost shifting is certain to have an impact on everyone.

UCR-usual and customary or reasonable no longer is. It no longer reflects the actual charges made by most physicians. UCR has become what third party payers (public or private) elect to pay. It may be a percentage of the fee. It may be a fee charged several years ago. It may vary from region to region and doctor to doctor. What it certainly is, is arbitrary; it is indemnification. There is nothing wrong with indemnification but I think it is time for us to recognize that it is no longer UCR. The time has come for the insurance

industry and public payers to come up front with this matter so that the consumer can get some idea what he is buying with his insurance premium dollar.

The 12th District Medical Society annual meeting was held at the Marriott Inn in Fort Wayne on Sept. 16, 1982. Edward R. Annis, AMA past president, was our featured speaker. Thomas A. Felger, M.D. was elected alternate trustee; Robert H. Musselman, Jr., M.D., president; Antonio B. Donesa, M.D., vice-president; and Thomas D. Smith, M.D., secretary-treasurer. As of this writing, the next annual meeting is scheduled for Sept. 15 at Hall's Guest House in Fort Wayne.

I would like to express my thanks to the membership of the 12th District for electing me to serve as trustee. I also want to thank an excellent ISMA staff for their helpful assistance throughout the year.

Michael O. Mellinger, M.D.
Trustee

Thirteenth District

The 13th District Medical Society remained an important, yet relatively quiescent, vehicle for physicians this past year. The primary event was the very successful 1982 annual meeting held at Michigan City's Potawatomi Country Club. Applause to our hosts, Dr. Donald Weninger, president, and Dr. John Luce, alternate trustee, and the members of the LaPorte County Medical Society. The business meeting was well attended with the election of the following officers: president, Dr. Donald Minter; president-elect, Dr. Richard Green; secretary-treasurer, Dr. Donald Smith. Dr. Edward Annis, the after dinner speaker, was extremely inspirational, with all in attendance proud they were in the medical profession.

This year's annual meeting will be held Sept. 14 at Elcona Country club, hosted by the Elkhart County gang. A full day of activities are planned, including golf, spouses' program, multiple prizes, exciting dinner and a guest speaker from NASA.

It appears that all of the eight counties representing the district had a busy year coping with the many issues confronting physicians throughout the country. Changes in hospital structure, administrative attitudes and physician relationships with hospitals, and overall hospital strategy changes in the '80s generated many concerns and actions on behalf of county medical societies. The traditional practice of medicine is threatened in many different ways, creating confusion, frustration, and a sense of disappointment on the part of physicians. Rising health care costs appear to be the culprit, with the doctor blamed as the etiology, yet he feels he is the victim. It is apparent that our local societies have the talent and capability to address many of the local issues and, in fact, they have begun to do so.

I will encourage the ISMA to assist its members through education and appropriate investigation of alternative systems in medical practice, methods of negotiation with hospital and third party carriers and optimization of practice management techniques to meet the new challenges before us.

IPIC has now merged into the multistate American Physicians Life Insurance Company. I am pleased to continue as an Indiana representative on the Board of Directors of this very exciting company. The merger will benefit both the ISMA and its members. APL will provide quality products specifically designed for physicians as well as provide financial rewards. The newly formed disability company, PICI, will similarly provide a needed service to its members and should be strongly supported.

I am now completing my final year as trustee for our district. The past 12 years have been most enjoyable. This position has opened up a whole sphere of friends, worthwhile projects, and an insight into many areas I could not otherwise have been able to participate in. I appreciate the advice and assistance from so many and I experienced no major controversies or problems that were not readily resolved through cooperation from all concerned. My message is simple. BE INVOLVED! The ISMA and its leaders want to do everything they can to serve its members. Please remember that our members do have diverse opinions on specific issues. It is clear that there must be a medical structure to represent the majority on the local, state and national levels. Your continued participation will assure that this process continues.

Donald S. Chamberlain, M.D.
Trustee

Address of the AMA President

Edited address presented during the first session of the House of Delegates by William Y. Rial, M.D., a Swarthmore, Pa. family practitioner and president of the American Medical Association:



Dr. Rial

Most of you know that after the December meeting of the Board of Commissioners of the JCAH, we changed the title of the medical staff to organized staff.

As you know, under the fourth draft which is now before you (we go to press for the Standards and Survey Procedures Committee within the next week), we have restored the term medical staff to the title of the medical staff standard of the Joint Commission's Manual on Accreditation for Hospitals.

Why did we take out "medical" to begin with? Well, part of it was the chilling effect of the Federal Trade Commission order on the ability of medical organizations and particularly the American Medical Association. It stated that we could not in any way interfere with the way physicians practice, or in their advertising. We felt if we allowed the term "medical" to stay in the title and in the description of the medical staff, that this sent a message to all other practitioners who were licensed in the state that the medical staff of the hospital was the exclusive, economic privilege or domain or workshop, if you will, of the fully licensed physician representatives to the Joint Commission on Accreditation of Hospitals.

Well, we got a lot of mail. Nobody likes it, so we went to the Federal Trade Commission. Dr. Sammons, our executive vice president, Dr. Boyle, who was then chairman of the Board and is now president-elect of the AMA, and I met with Mr. (James C.) Miller, chairman of the FTC. He and his staff of attorneys and our staff of attorneys sat down and reached some decisions that are, we believe, reasonable and agreeable. Under the terms of these, the Federal Trade Commission restricts to itself the authority, the right, the responsibility to take action in those issues which are called per se violations of the Anti-trust Law.

An example of a per se violation is boycotts; in other words, if you and I say we're not going to go to St. Joseph's Hospital or we're not going to allow X doctors, because they're a class of doctors, to have privileges in our hospital, those are per se violations. Another example is allocation of markets, that is, if Dr. Allen and I decide we're going to divide up Main Street and he'll take the patients on the north side and I'll take the patients on the south side of the street, that's allocation of a market—that's a per se violation. You don't have to prove anything except that it occurred. You don't have to prove a cause, you don't have to prove reason.

The Federal Trade Commission has insisted that those are issues which belong in its provinces. Our lawyers have agreed on this, and have also gotten the lawyers for the Federal Trade Commission to agree, that in other issues—standard setting—if there is an economic impact on a standard, there must be a good reason. The reason must be the improvement of the quality of care in the hospital. And therefore they have allowed that the profession has a right to speak out on those issues, and make its voice heard in the appropriate halls—whether it's Congress or elsewhere, JCAH, or in your own hospital. As a consequence of that, Mr. Miller has gone to the Congress and introduced authorization for the Federal Trade Commission to have jurisdiction in the per se violations and that, in those other issues, medicine will be permitted to have a say.

All right. We have changed the standard. The new standard says that it will be a medical staff, and it says—this is very important for you to understand because it has some of our members still somewhat upset—that the medical staff will consist of full-licensed physicians, meaning fully licensed M.D.s or D.O.s, and such other practitioners permitted by law and by the hospital to practice independently and without supervision.

Now why did we add those words which have some people upset? They say, "Well, then you can allow all these other individuals to come in on a hospital medical staff, and practice without supervision." Of course not. They must have their privileges delineated the same as you and I have our privileges delineated. I can't do everything that my license allows me to do in my hospital. I, as a family physician, don't do obstetrics anymore because we have more obstetricians on our staff, and there's no need for me to do obstetrics. All of us have to have our privileges delineated by the credentials committee of the medical staff.

The reason we say independent and unsupervised is because if we did not add those words, because that's what their license permits them to do in their own offices, then everyone who provides patient care services in the hospital must be supervised. We're talking about those who have the right under the law to practice without supervision.

The other disclaimer is that the individual who is a limited licensee, who admits a patient to your hospital, must have a physical examination done promptly. And the definition of promptly is immediately. That's defined in the glossary, the same as the definition of who are limited licensees.

Now, we have not eliminated the anti-trust potential. Our friends, the dentists, are upset because we've taken them out. We've taken dentists out because our lawyers have indicated to us that if we mention any other group of limited license practitioners, then we must mention all of those who are licensed to practice in the state. And, that may not be the most desirable way to go. Now, the dentists are unhappy, they've gone to the Justice Department and asked that the Justice Department issue a ruling about this. We don't believe that it's going anywhere, but nonetheless, you see the anti-trust potential that builds up by just such a simple thing as that. Many of these

dentists feel that they're going to be deprived of privileges in your hospital. Not so. That's not the intent of the new standard. The intent is simply to remove the anti-trust potential.

Let me go on and talk about two other issues which are of great concern to me. One other thing that I didn't mention with respect to the JCAH standard concerns the Executive Committee of the medical staff. Under the new standard, a majority of the members of the Executive Committee in acute care general hospitals (and the reason we had to add that is because JCAH also accredits certain podiatry institutions and mental health facilities which don't have a majority of the members on the staff or are fully licensed physicians), must be fully licensed physicians.

Let me talk now about another issue, and that's the DRG. When the Executive Committee of the AMA Board of Trustees met with the Senate Finance Committee back in May, we said to them, "Why did you pass the DRG bill when it has not been proven to be cost effective? Even in New Jersey, where it's been in effect for three years, they aren't sure whether it's cost effective. You heard Dr. Schwartz talk about that earlier this evening. Well, Senator Long, the minority chairman of the Finance Committee, said, "We were desperate." Well, that doesn't seem to me to be a very logical reason to do something in the legislative way. But, if the Senate of the United States was desperate to do something, and passed a bill which they don't know will help, do you see the dilemma that this places all of us in, you and I particularly, because you and I are the purchasing agents of our patients' medical care.

Now, how much is too much? We don't know, but the Senate Finance Committee is worried. Senator Hines, my own senator, told me that the Medicare Trust Fund is about to go bankrupt and the estimates are that in anywhere from 3-5 years there will be no money left. We must decide how we practice medicine. There must be ways that we can address these issues. I call upon you to do your utmost to decrease the increasing cost of medical care where it's appropriate. And, we don't know how much medical care is necessary.

If your daughter, your son, your granddaughter, or your grandchild (needed life-saving surgery) it wouldn't matter how much it cost. It's worth every penny. But you and I, friends, are still the ones who spend this money, and we have a responsibility, not only to our patients to see that they get the best care, but to see that they get cost effective care. Let us not in our zeal forget that it's a *patient* with heart disease, not a cardiac case, it's a *patient* with gall bladder disease . . . .

House Address: The Future of American Medicine

Edited address presented during the first session of the House of Delegates by Harry Schwartz, Ph.D., writer-in-residence, College of Physicians and Surgeons, Columbia University:

I was asked to talk about the future of American medicine and in thinking about how to frame my thoughts, I looked for an analogy. It's not perfect, no analogies ever are, but there's a similarity, I'm afraid, between the history of the American airplane industry and the history of American medicine. If we reflect a bit about what is going on in the airline industry today, we may have some clues as to what's happening or going to happen to American medicine.

I need hardly tell you that the airlines in the United States are equipped with many of the best planes in the world. The equipment has gotten bigger and better. But, the airline industry itself seems to be going broke. Notice that. And I think it offers a precedent for what is happening to American medicine. Now, if we can look at what I might call the 747 side of things as the future of American medicine, it's quite clear that there is an absolutely brilliant technical and therapeutic future ahead.



Dr. Schwartz

I don't think you are ever going to make doctors or anybody else immortal, but a lot of the illnesses that still claim millions of lives every year are already being partially defeated and will be defeated even more in the future. What has happened to deaths from stroke and heart disease has been catstrophic for stroke and heart disease but good for human beings. And, I'm sure you know that cancer, although still a very formidable foe, is beginning to show signs of being understood. There are a lot of people working in the field who would be very surprised if 10 years from now we weren't able to cure or even prevent a large fraction of cancer cases. American medicine is able to do far more for its patients today than it ever was before. It will be far more able to do things to postpone death, to prevent illness, and to improve the quality of life in the years ahead than it is even now.

In other words, in terms of sheer technical ability—your ability to give value for money, if you will—there is nothing but optimism and upward rocketing, really, of medicine's abilities in sight. But, if one looks at what's happening to the medical system itself, one begins to see a very different picture. Dr. Hoffman here, on accepting his award (ISMA's Physician Community Service

Award) said some of the things that needed to be said very well. He said that "it's been great to lead a free, productive and useful professional life and to do so in a way that left me enough time to be of community service as well," in his case, to the Boy Scouts.

Then he said, "But I see signs that that's disappearing." And I thought it was a marvelous description of what's happening. Now, why is it disappearing and why is the future of medicine as an occupation a rather dim one? Well, there are a number of reasons. And they very largely have to do with government. Not entirely, but largely. You have to understand that government in the United States is a mindless octopus. You think of an octupus with "thousands" of tentacles, with each one going off and doing its own thing, completely or almost completely unconscious of what the other tentacles are doing. Then you've got some idea of what government is like. I'm not an anarchist; I pay my taxes and so on, and am properly frightened of the IRS. But government really is a mindless octopus. Let's look at some of the effects of that in the medical field. Now and for the future.

For one thing, about 20 years ago, under the leadership first of John F. Kennedy and then Lyndon Johnson, the American government began encouraging "Cadillac" medical care for Americans. The best for everybody. They established the Medicare program for people 65 and over, Medicaid for the poor, and of course, under the impact of this vast expansion of governmental care, private industry and business of all kinds expanded private health insurance coverage enormously. And so for a while in the 1960s there was a real utopian evangelism going.

I think those who paid attention to Lyndon Johnson got the idea that he himself was hoping that medical care would improve enough so that he would be immortal. In one of the last speeches he made before he gave up the Presidency—a lecture at the National Institutes of Health—he said, in effect, "I've showered all these billions of dollars on you people and, you ungrateful whelps, you haven't come up with the cures for the diseases that will kill me." And of course, a few years later he died. So, his challenge, his reproof, was merited.

Well, what was completely lost sight of, is that the road to hell is paved with good intentions, and in a manner of speaking, what we've done is pave a road to a kind of medical hell with these good intentions. That is, by promising the American people that they could have everything possible, the best technical medicine everywhere, the one thing that was left out of the account, was how much it would cost.

What is fascinating—I'm sure I'm not the only person who is old enough to have both a vivid memory of what the atmosphere was like in the mid 1960s and what the atmosphere is today—is that in the mid 1960s nobody wanted to hear about what it might cost. When the AMA tried to raise that question, its spokesmen were dismissed as a bunch of reactionary doctors who hated people, that's all. But if you go back and read what the AMA was saying in the early and mid 1960s, it's now obvious they had a lot clearer vision. They had 20/20 vision compared to the 20/400 vision or 20/800 vision of the politicians. But of course, nobody remembers that except a few fuddy-duddies like me.

At any rate, the effort to deliver on those promises has become a cropper. The American people are not willing to pay the cost of Cadillac medicine for all. As a people we lack what is called statistical compassion. You show us somebody suffering in pain in front of us and we'll give that person the shirt off our back. But if you tell me there are thousands of sufferers of XYZ disease over this vast continent, and that I ought to feel terrible about it, well what am I going to do? I don't know any of these people. I've never seen XYZ disease. I've got enough troubles of my own. I lack statistical compassion.

What has become clear is that the American people do not want to pay the bill for doing everything that could be done. If you will, the basic crime of American medicine is that you have invented and are in the process of inventing still more useful and effective things to postpone death, to improve the quality of life, but all of the things you can do and that you will be able to do in the future add up to a totality which is more than the amount we, as a nation, are willing to pay.

The evidence that we are not willing to pay the bill comes, first of all, from the vast tumult about the rising cost of health care. Most of the people who write or speak on the subject center in very cruelly on who's responsible for the rising cost of health care. Doctors are usually blamed. In one sense they're right. Because, it is the doctor who mobilizes the fantastic abilities of all the different fields of therapy and diagnosis for the benefit of individual patients. If you wiped out the medical profession, I assure you, the chiropractors and faith healers would not cost as much but they wouldn't be as effective either. So, in that sense doctors are responsible.

Of course, you know what's happening—the DRGs, the HMOs, the PPOs and so on—but what it comes down to is that, because the cost of medical care in the United States has climbed above 10% of the gross national product, there is now a kind of informal consensus: No more for medical care! There's too much momentum built into the system for the cost explosion to stop suddenly. It will probably go up to 11 or 12%, but I think all of you are beginning to feel in your practice that the clamps are now down. And, as the DRG allowances in your hospitals get tougher and tougher, as the screws get tighter and tighter, you'll discover that in a few years, when in doubt, take the economical alternative. Either that or the director of your hospital will toss you off the hospital staff. And that's already happening to a few doctors in New Jersey, which has been the experimental state on DRGs.

So, on the one hand, the amount of money that we are willing to pay as a nation for medical care is limited and we are reaching the limit. And both government and private payers are saying no more. You also know that Medicare itself will probably be bankrupt before 1990. If you think DRGs are terrible, just think what's going to happen when bankruptcy occurs. You may look back to these as the good old days.

Now, along with all of this, however, I say the government is a mindless octopus. The government decided about 20 years ago that we had a shortage of 50,000 doctors. That became official doctrine, the center of conventional wisdom.

If you read carefully, as I did, you saw people were uncertain. Many people said we had a shortage of 50,000 doctors while others said we had a shortage of 100,000. Weren't quite sure. What the heck, 50,000 or 100,000, everybody knew we had a terrible, terrible shortage.

You know what we did. We went into a frenzy of building new medical schools, expanding old medical schools, and inviting tens of thousands of foreign-trained physicians into the United States. By the way, have you ever thought that American medicine is the most cosmopolitan profession in the United States? There is no country of any size that does not have some of its citizens represented in the American medical profession, which is splendid from many points of view. What happened, of course, was that we got 50,000 more doctors but this mindless octopus, having made up its mind to increase the number of doctors, lost interest for a long time in the consequences. It never occurred to the government, in any serious way, that maybe having opened the faucet wide the day would come when it would have to close the faucet.

The figures are very simple. In 1965, we had 300,000 physicians, M.D.s and Doctors of Osteopathy together. Since 1965, the population has increased 20-25%. But the number of physicians in the United States is now almost 550,000. It will certainly hit 600,000 before this decade is over. In other words, in roughly two decades, we have almost doubled the number of physicians and the country's population has only gone up 20-25%. Today, in every major metropolitan area of the country, we have a surfeit of doctors. There are lots of doctors in the major metropolitan areas who come to their offices and spend a large fraction of their time doing the crossword puzzle. Some of those doctors are the ones who used to have a full schedule. What I'm suggesting is that the country has decided we really don't want to give everbody Cadillac medicine. We can't afford it. But meanwhile the number of doctors is still escalating rapidly. As the economic screws tighten, competition among doctors will become even more ferocious than it is now. And nobody knows if the faucet pouring 20,000 or more new doctors into this country will ever be turned down, even partially.

How do you solve the problem? I am told the solution I've offered at times has made the Association of American Medical Colleges adopt a secret resolution to the effect that I will never be admitted into an American medical school. So, in moments of utter desperation, I've suggested closing all the medical schools for five years. But I'm perfectly well aware of the political factors. Medical schools have a very good lobby. The AAMC has done very well for its constituency. They aren't going to let this happen. But at the very least, we ought to be putting on the agenda a discussion of how much of a doctor surplus we want to have. In a few years the Dr. Hoffmans aren't going to be able to work for the Boy Scouts because they'll be spending every minute of seven days a week looking for patients. That's what Dr. Hoffman had in mind when he said he used to be able to make a living and yet have time left over for community activities.

I live in Scarsdale, New York, one of the highest income areas in the country, and a mile north of where I live, two doctors have opened an emergi-center which is open every day from 6 a.m. to midnight, seven days a week. And those two doctors are there every day. I went in and talked with them—they've advertised widely—and you know what they said? "Our advertising had one surprising result; we've had about 50 phone calls from doctors who want a job." So that's what's going on around Scarsdale, New York.

There is a real sense that the future of medicine is, in a way, brilliant. To be a patient in 1993 will be much better than to be a patient in 1983. But I'm afraid that to be a doctor or nurse in 1993 is going to be much worse than it is today. Since I speak as a potential patient, what's worse is that whatever the improved technical capabilities of medicine may be in 1993, if the doctors of 1993 are an aggrieved, angry, resentful bunch of men and women, convinced that society has double-crossed them, the kind of care they're going to give is going to reflect that. I don't want to be served by doctors who have that chip on their shoulder.

I hope that you ladies and gentlemen in the Indiana Medical Association will use your collective wisdom to find a way of: a) making medicine more cost efficient; b) making our society realize the compromises that are required if we are going to put a lid on medical costs; and c) getting our society to get its act together again and stop turning out so bloody many doctors when we have too many doctors. Having too many doctors is at least as bad as having too few—unnecessary operations, unnecessary tests, and fakery. Remember, even 10 years ago there were doctors who were prescribing Laetrile for cancer. God knows what the scoundrels will prescribe in 1993. Thank you very much.

House Address: The Success of AMPAC

Edited address presented during the first session of the House of Delegates by Fred C. Rainey, M.D., chairman of AMPAC; Kentucky Medical Association AMA delegate; and chairman, AMA Council on Legislation:

I'm delighted to spend the next few minutes with you discussing a topic that is very dear to me, and I hope it's very dear to you. As I sat up here a few minutes ago, it occurred to me that I'm probably talking to the wrong people. The people I'd like to be talking to are those in Indiana who aren't here this evening. So if you'd go back to your respective communities and talk to your colleagues and tell them how much we need them and want them in the PAC movement, I believe your membership will continue to grow.

I'm proud of AMPAC, I'm proud of our accomplishments, and I'm proud for the foresight the American Medical Association demonstrated in 1961 when the AMA House of Delegates formed AMPAC. AMPAC was then, and continues to be, a leader in this field. AMPAC was the first non-labor political action committee ever established in the United States, and it has served as an example and a proto-type for all those to follow who have been interested in joining and participating in this type of activity since that time. We're proud of our successes.

I'm often reminded that success is about 2% inspiration and 98% perspiration. And, I think that it's evident that's what it's going to take on your part and mine if we are to see this movement as successful as we want it to be and in my opinion, as successful as it absolutely must be. AMPAC's membership is dancing around the figure of 50,000.

Our successes continue to increase. In 1974, of those candidates whom AMPAC supported, 74% were elected. In the 81-82 election cycle, of all those candidates whom AMPAC supported, 84.7% were successful in their efforts. We participated in the 81-82 election cycle to the tune of $2.4 million, and in 493 campaigns. We participated in 447 House races, 46 Senate races, and we supported 251 Republicans and 154 Democrats. Of those efforts, 264 of them were in the primary, and 229 were in the general election. And, I'm always



Dr. Rainey

pleased to say, we enjoy strong support from the AMA.

All of our administrative expenses are paid by the American Medical Association, which enables AMPAC to use every single dollar, which you and other physicians send in the form of dues, for candidate support activities. I think that's extremely important, and a most welcome and appreciated indication of support from the AMA.

What else do we do? We don't just serve as a pipeline or a conduit channeling funds into campaigns. We are heavily involved in educational activities as well as candidate support. This year alone, we will conduct approximately 30 state political seminars around the country in an effort to get physicians, their spouses, and other members of their families more interested in our political activity and participating at a greater level. I need not tell you that's sometimes difficult to do.

About three or four weeks ago, when I attended one of these seminars, I was trying to persuade a reluctant colleague that he ought to be more active in the political process and pay more attention to the legislative process. I was about to lose the battle. I reached to the bottom of the barrel and said, "Well, Doctor, what do you feel is our greatest disadvantage when we're trying to motivate people to become involved and participate in the political process? Do you feel it's ignorance of the political process or apathy?" He said, "I don't know and I don't care."

We also conduct regional political action committee conferences around the country in various states, giving our staff an opportunity to exchange views and problems with state PAC staffs as well. We just completed what we feel to be a very successful national political conference in Washington two weeks ago. Attendance was excellent and we feel that we had a truly outstanding program for the attendees, and we were very pleased with the response we had from all the states.

We would like to feel that we are active in the area of communications, attempting to communicate with our members and others to encourage them to continue their participation and those who are relatively inactive, to become more involved.

Another extremely important function of AMPAC is research. We are heavily involved in research, developing innovative techniques in the campaign process. AMPAC has been a trend-setter in the area of independent expenditures, testing the waters in 1978 for the first time. Since that time, we have participated in the area of independent expenditures using television spots, radio spots, ads in magazines such as *Newsweek, Time, U.S. News and World Report*, and direct mail.

In this last election cycle we experimented in one Congressional district that has a high percentage of Hispanics with a radio spot that ran every 45 minutes for a week on behalf of a candidate. Of those candidates whom we supported with independent expenditures with TV and radio spots, 75% were successful in their election efforts. Our direct mail efforts were 88.8% effective. We are now doing research viewing the possibilities of using cable TV for independent expenditure efforts. I'm pleased to report to you that we won first place with one of our political TV spots, awarded by the American Association of Political Consultants.

This last election cycle, we spent approximately $380,000 for benchmark surveys which yield extremely important information determining voter attitude, public opinion, and information critical to the formulation of a campaign strategy and a campaign plan. In the last election cycle, we did 36 benchmarks; 34 of those

for incumbents, and 26 of the incumbents for whom we did benchmark surveys were re-elected.

We have also recently conducted research on the voter switch study, determining change of allegiance to candidates, who changes their allegiance, when they change it, and why they change it.

We have also conducted research in the recent past on doing an attack defense study, which was a piece of research to gauge the impact of negative advertising and the most effective response a candidate can use in response to a negative ad. We have never, not once, participated in a negative campaign. We use our funds and our efforts and our resources on behalf of a candidate whom we favor, and we do not make an effort to tear down an individual who is seeking office.

We conducted a nationwide, post-election survey after the '82 elections determining the perception of the registered voters of the '82 election process and the forces which impacted the result and their decision on how they voted. We gave this information to both political parties, and you might be interested to know that the Democratic party used the results of this nationwide survey, conducted by AMPAC, almost exclusively in molding their response to President Reagan.

I'm sure that most of you know that in 1977 we also conducted a nationwide poll determining the public's attitude toward campaign public financing of Congressional campaigns. And we have tracked that campaign every year since that time. I'm sure that most of you know that the vast majority of American people oppose taxpayer-financed Congressional campaigns.

I couldn't pass up the opportunity of mentioning our good friend Fred Wortheimer, president of Common Cause, who has declared war on PACs. One has to wonder where it is that he would like to go with his efforts. It seems to me, that every time I hear someone criticizing PACs, the bottom line almost always is "taxpayer-financed Congressional campaigns." I think perhaps they don't want the members of Congress to listen to you and me and others like us, but they would like to have them listen to them instead.

It does my heart good when public officials speak out, as did Kentucky's senior Senator when he spoke in Phoenix, Arizona a few weeks ago. Speaking for the National Cotton Council, Senator Halston stated that the PAC system of financing campaigns is "the cleanest and the most honorable we've ever had. Of all the systems we've used up to now, none has been as open and above board as the political action committee system has been." I would certainly have to agree with that.

In closing, I would like to commend those of you in Indiana for your membership efforts. In 1981, you had 1,059 PAC members. In 1982, you had 1,536. This year, so far, you have 2,252, and I think you are to be commended for that effort. I thought you might also be interested in knowing that in the last 10 years, you have sent to AMPAC in dues money, $246,625. However, AMPAC has spent, in Indiana, on Congressional and senatorial candidates, $254,013.83. So, you've come out ahead.

Nine members of your 12-member Congressional delegation, including your two senators, have received AMPAC support. So, what do we do? We're on the right track. But, if we sit still, we'll get run over. I'm pleased to see that Indiana is not sitting still. Your membership has increased each year for the last three years. I would urge you, yes, in fact I would beg you, to please continue your membership efforts because the times lying ahead are much more bleak, much more difficult, and much more complex than anytime any of us can remember. You've already heard reference made to the alphabet soup that we have to go through now—PROs, PSOs, DRGs and IPAs. This profession cannot afford the luxury of inactivity and apathy.

You'll remember the story about the brain transplants, when the patient went in for a brain transplant, and the neurosurgeon said, "Well, I can transplant the brain of an attorney for $10,000." The patient thought a while and he said, "What other options do I have?" The doctor said "Well, I can transplant the brain of a physician for $20,000." The patient said, "That's getting a little expensive . . ." The doctor said, "I have something still a little better. I can transplant the brain of a professional Washington bureaucrat for $30,000." The patient said, "My gosh, why does it cost so much?" The doctor replied, "Because it's new and unused."

Thank you very much.

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_____	016 Corticosteroids—Oral
_____	006 Coumarin-Type Anticoagulants
_____	005 Digitalis Medicines
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_____	001 Furosemide
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_____	022 Haloperidol
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_____	035 Indomethacin
_____	015 Insulin
_____	038 Iron Supplements
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_____	045 Pentazocine—Oral
_____	041 Phenothiazines
_____	058 Potassium Supplements
_____	052 Prazosin
_____	046 Propoxyphene and with Aspirin or Acetaminophen
_____	053 Spironolactone and with Thiazide
_____	060 Steroid and Antibiotic Eye Drops
_____	051 Triamterene and with Thiazide
_____	042 Tricyclic Antidepressants
_____	Total number of pads (5 pad minimum, 50 PMIs per pad)
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A message from the Food and Drug Administration. For more material about being an informed patient, write to: FDA, HFE-88, Rockville, Md. 20857.



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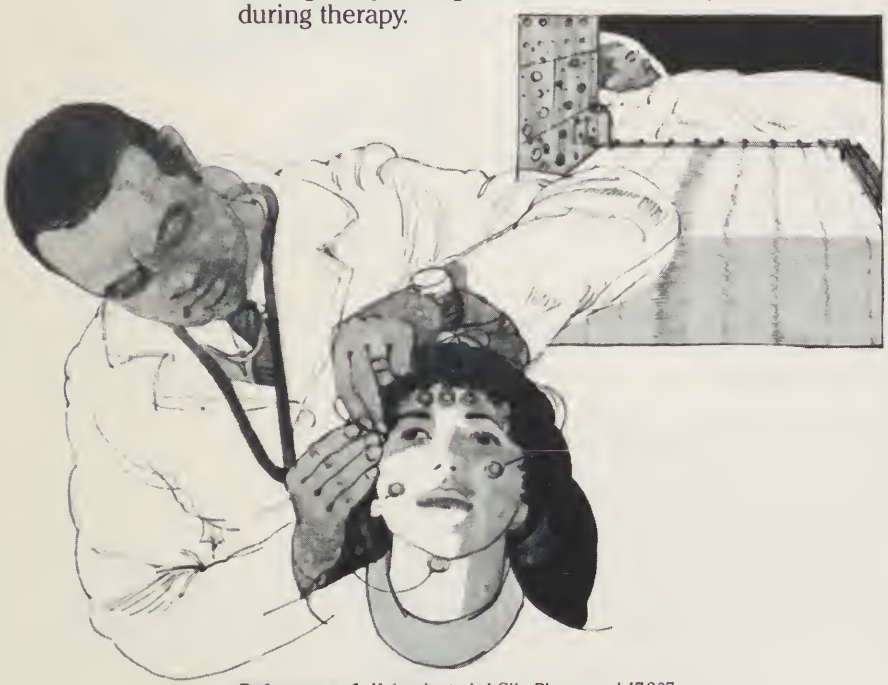
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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under f5 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to f5 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

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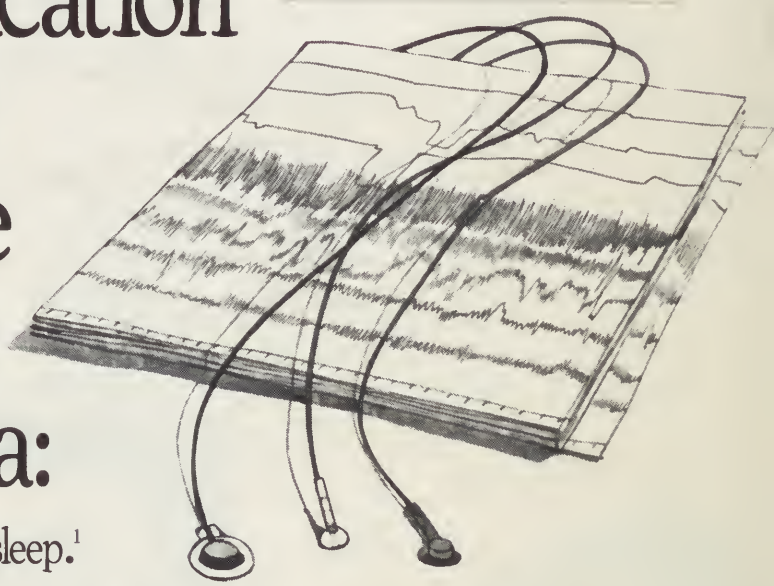
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